

# MIRRORS

[A preliminary report for this industry was issued under date of January 8, 1927]

**Description of the industry.**—This industry embraces establishments which are engaged primarily in the manufacture of mirrors, both framed and unframed. The principal products are pier glasses, mantel mirrors, hall mirrors, mirrors for show cases, hand mirrors; etc. The value of products shown includes receipts for the resilvering of mirrors.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925**

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925-----	218	4,153	\$6,104,015	\$68,090	\$19,713,293	\$34,948,504	\$15,235,211	6,306
1923-----	195	3,464	4,879,043	33,314	20,091,199	33,467,973	13,376,774	5,722
1921-----	180	2,368	3,232,984	14,466	10,082,161	16,739,545	6,657,384	( <sup>3</sup> )
1919-----	186	2,599	2,819,140	15,553	12,498,733	20,830,775	8,332,042	4,232
1914-----	182	3,184	1,967,811	19,216	6,013,970	10,189,431	4,175,461	4,480
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925-----	11.8	19.9	25.1	104.4	—1.9	4.4	13.9	10.2
1921-1923-----	8.3	46.3	50.9	130.3	99.3	99.9	109.9	-----
1921-1925-----	21.1	75.4	88.8	370.7	95.5	108.8	128.8	-----
1914-1925-----	19.8	30.4	210.2	254.3	227.8	243.0	264.9	40.8

<sup>1</sup> Including also cost of fuel, electric power, and containers.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> These figures differ from those published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3, p. 918).

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 5, p. 919]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	4,153	4,099	4,078	4,104	4,078	4,051	4,015
1923 <sup>1</sup> .....	3,464	3,499	3,507	3,493	3,498	3,479	3,495
1921 <sup>1</sup> .....	2,368	<i>2,448</i>	2,271	2,273	2,267	2,267	2,317
1919 <sup>1</sup> .....	2,599	<i>2,271</i>	2,333	2,385	2,400	2,470	2,585
California.....	237	249	230	235	239	247	234
Illinois.....	392	392	398	406	394	388	367
Indiana.....	408	353	376	352	363	407	404
Massachusetts.....	130	123	123	121	121	122	121
Michigan.....	164	182	168	176	169	155	156
Minnesota.....	15	15	13	13	14	14	15
Missouri.....	58	60	60	61	61	60	56
New Jersey.....	160	161	157	158	161	158	149
New York.....	1,120	1,148	1,139	1,154	1,124	1,095	1,079
North Carolina.....	176	185	180	179	171	167	171
Ohio.....	196	203	197	194	193	184	185
Pennsylvania.....	320	291	297	308	312	309	308
Tennessee.....	136	139	135	136	137	133	135
Washington.....	86	80	68	84	89	85	86
Wisconsin.....	125	114	124	121	125	124	124

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <sup>1</sup> .....	4,023	4,084	4,193	4,365	4,400	4,347
1923 <sup>1</sup> .....	3,485	3,471	3,418	3,412	3,418	3,388
1921 <sup>1</sup> .....	2,267	2,345	2,414	2,543	2,589	2,616
1919 <sup>1</sup> .....	2,554	2,709	2,777	2,861	2,921	2,922
California.....	241	236	232	234	236	235
Illinois.....	358	367	383	407	418	421
Indiana.....	411	442	452	452	458	428
Massachusetts.....	123	125	135	144	152	149
Michigan.....	154	155	158	164	164	164
Minnesota.....	15	15	17	17	18	16
Missouri.....	53	55	55	55	57	57
New Jersey.....	148	154	160	172	173	170
New York.....	1,064	1,089	1,105	1,149	1,158	1,139
North Carolina.....	169	166	178	180	183	180
Ohio.....	189	198	200	199	206	199
Pennsylvania.....	304	303	313	358	363	378
Tennessee.....	130	132	131	138	141	142
Washington.....	88	92	93	94	84	84
Wisconsin.....	125	126	130	136	127	129

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by italic figures. Per cent which minimum forms of maximum: 1925, 91.2; 1923, 96.6; 1921, 85.7; 1919, 77.7.



TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Number	Horse-power	Number	Horse-power	Number	Horse-power
Prime movers, total.....	987	6,306	602	5,722	375	4,232
Steam engines.....	14	1,097	30	1,868	28	1,815
Steam turbines.....	2	260			2	200
Internal-combustion engines.....	4	85			11	173
Electric motors driven by purchased current.....	967	4,864	568	3,789	334	2,044
Electric motors, total.....	1,006	5,044	609	4,093	402	2,426
Driven by purchased current.....	967	4,864	568	3,789	334	2,044
Driven by current generated in establishment reporting.....	39	180	41	304	68	382
		Kilo-watts		Kilo-watts		Kilo-watts
		440	(?)	(?)	(?)	(?)
Electric generators.....	6					

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

KIND AND STATE	Number of establishments	Value	KIND AND STATE	Number of establishments	Value
Total.....	218	\$34,948,504	Mirrors, other than plate glass, total.....	104	\$3,089,927
Mirrors, plate glass, total.....	106	22,988,169	California.....	10	69,500
California.....	24	1,372,988	Illinois.....	12	579,912
Illinois.....	16	1,963,882	New Jersey.....	8	156,847
Indiana.....	11	2,430,607	New York.....	29	1,294,511
Massachusetts.....	5	514,238	Ohio.....	10	313,079
Michigan.....	5	1,352,671	Pennsylvania.....	9	295,812
Missouri.....	9	335,889	Wisconsin.....	3	176,137
New Jersey.....	9	595,293	Other States <sup>1</sup> .....	23	204,129
New York.....	42	5,670,430	Other products, <sup>4</sup> total.....	105	8,870,408
North Carolina.....	6	2,911,842	California.....	12	605,380
Ohio.....	11	668,146	Illinois.....	9	674,633
Pennsylvania.....	15	1,199,908	New Jersey.....	5	136,783
Tennessee.....	5	488,043	New York.....	19	3,256,733
Washington.....	5	229,131	Ohio.....	6	346,029
Wisconsin.....	7	582,906	Pennsylvania.....	11	479,927
Other States <sup>2</sup> .....	26	2,672,195	Tennessee.....	3	300,141
			Other States <sup>3</sup> .....	40	3,070,782

<sup>1</sup> In addition, mirrors valued at \$1,958,058 were reported as secondary products by establishments primarily engaged in other industries.

<sup>2</sup> Alabama, Arkansas, Connecticut, Florida, Iowa, Kentucky, Louisiana, Maryland, Minnesota, Nebraska, Oregon, Texas, Utah, Virginia, and West Virginia.

<sup>3</sup> Connecticut, Indiana, Louisiana, Massachusetts, Michigan, Minnesota, Missouri, Oregon, Texas, Washington, and West Virginia.

<sup>4</sup> Plate-glass store fronts, fancy art glass, leaded glass, stained-glass windows and frames, picture frames, plate-glass tops for tables, vases, show cases, windshields, glass knobs, etc. Receipts for beveling, polishing, and resilvering are also included.

<sup>5</sup> Arkansas, Connecticut, Florida, Indiana, Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Oregon, Texas, Utah, Virginia, Washington, and West Virginia.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	218	5,192	153	1,886	4,153	6,306
California.....	24	325	11	77	237	445
Illinois.....	20	487	8	87	392	505
Indiana.....	11	492	2	82	408	427
Massachusetts.....	6	158	7	21	130	228
Michigan.....	5	188	4	20	164	255
Minnesota.....	3	20	3	2	15	66
Missouri.....	9	88	9	21	58	147
New Jersey.....	11	198	10	28	160	217
New York.....	54	1,457	54	283	1,120	1,715
North Carolina.....	6	198	3	19	176	255
Ohio.....	12	257	5	56	196	402
Pennsylvania.....	17	396	19	57	320	569
Tennessee.....	5	152	2	14	136	130
Washington.....	5	104	—	18	86	75
Wisconsin.....	7	146	2	19	125	279
All other States <sup>1</sup> .....	23	526	14	82	430	591

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>2</sup>
United States.....	\$2, 076, 195	\$6, 104, 015	\$68, 090	\$19, 713, 293	\$34, 948, 504	\$15, 235, 211
California.....	94, 620	416, 721	14, 992	1, 139, 012	2, 047, 868	908, 856
Illinois.....	184, 497	703, 021	24, 414	1, 810, 359	3, 218, 427	1, 408, 068
Indiana.....	163, 776	429, 873	—	2, 245, 518	3, 323, 862	1, 078, 344
Massachusetts.....	34, 945	188, 469	—	342, 857	795, 324	452, 467
Michigan.....	52, 080	259, 193	—	813, 594	1, 478, 149	664, 555
Minnesota.....	2, 560	20, 565	1, 200	28, 917	66, 264	37, 347
Missouri.....	26, 152	95, 611	141	190, 260	381, 073	190, 813
New Jersey.....	95, 522	262, 906	152	387, 979	888, 923	500, 944
New York.....	663, 425	1, 927, 056	12, 719	5, 096, 577	10, 221, 674	5, 125, 097
North Carolina.....	59, 034	177, 916	—	2, 102, 769	2, 911, 842	809, 073
Ohio.....	218, 310	257, 977	13, 640	669, 248	1, 327, 254	658, 006
Pennsylvania.....	148, 375	400, 135	280	1, 106, 049	1, 975, 647	869, 598
Tennessee.....	34, 468	115, 901	—	442, 854	788, 184	345, 330
Washington.....	52, 725	157, 988	—	174, 964	430, 544	255, 560
Wisconsin.....	68, 809	186, 006	—	441, 767	759, 043	317, 276
All other States <sup>2</sup> .....	176, 897	504, 677	552	2, 720, 549	4, 334, 426	1, 613, 877

<sup>1</sup> Not including 23 salaried officers and employees of central administrative offices, with salaries aggregating \$71,236. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals of 909 salaried officers and employees and \$2,147,431. (See "Central-administrative-office employees," p. 1193.)

<sup>2</sup> Alabama, 1 establishment; Arkansas, 1; Connecticut, 1; Florida, 1; Iowa, 2; Kentucky, 2; Louisiana, 2; Maryland, 1; Nebraska, 1; Oregon, 2; Texas, 2; Utah, 1; Virginia, 4; West Virginia, 2.

<sup>3</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>4</sup> See footnote 1, Table 4.

## SAND-LIME BRICK

[A preliminary report for this industry was issued under date of June 21, 1926]

**Description of the industry.**—This industry consists in the manufacture of brick from a combination of sand and lime molded under heavy pressure and subjected to the action of steam in a hardening chamber.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925**

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925-----	41	801	\$1, 118, 634	\$19, 951	\$1, 237, 970	\$3, 759, 729	\$2, 521, 759	6, 396
1923-----	31	582	697, 850	20, 224	945, 931	2, 408, 106	1, 462, 175	4, 332
1921-----	26	374	361, 182	10, 538	500, 689	1, 220, 425	719, 736	(3)
1919-----	32	504	501, 854	-----	575, 402	1, 663, 052	1, 087, 650	4, 358
1914-----	45	557	321, 956	5, 715	350, 484	994, 199	643, 715	5, 606
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925-----	(4)	37. 6	60. 3	—1. 3	30. 9	56. 1	72. 5	47. 6
1921-1923-----	(4)	55. 6	93. 2	91. 9	88. 9	97. 3	103. 2	-----
1921-1925-----	(4)	114. 2	209. 7	89. 3	147. 3	208. 1	250. 4	-----
1914-1925-----	(4)	43. 8	247. 4	249. 1	253. 2	278. 2	291. 8	14. 1

<sup>1</sup> Including also cost of fuel and electric power.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Not computed where base is less than 100.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925,  
AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 5, p. 923]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925	801	669	686	698	805	829	870
1923	582	417	406	482	552	633	689
1921	374	323	295	282	333	369	389
1919	504	314	321	343	408	529	550
Florida	92	79	92	86	86	85	81
Michigan	192	188	173	184	199	204	211
Minnesota	58	19	16	23	43	63	74
New Jersey	75	75	70	66	74	72	66

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	Septem- ber	October	Novem- ber	Decem- ber
United States:						
1925 <sup>1</sup>	918	907	860	822	790	756
1923 <sup>1</sup>	719	666	644	616	569	590
1921 <sup>1</sup>	374	410	431	477	439	367
1919 <sup>1</sup>	606	569	582	572	633	621
Florida	81	97	112	120	88	92
Michigan	234	200	182	166	185	172
Minnesota	85	98	76	70	40	39
New Jersey	61	78	81	87	83	83

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 73; 1923, 56.5; 1921, 59.1; 1919, 49.6.TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND  
RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num- ber	Horse- power	Num- ber	Horse- power	Num- ber	Horse- power
Prime movers, total	220	6,396	117	4,332	63	4,858
Steam engines	29	3,495	28	3,036	32	3,770
Steam turbines	5	205				
Internal-combustion engines	3	43	3	17	8	48
Water wheels and turbines						
Electric motors driven by purchased current	183	2,653	86	1,279	23	540
Electric motors, total	184	2,663	102	1,514	26	560
Driven by purchased current	183	2,653	86	1,279	23	540
Driven by current generated in establish- ment reporting	1	10	16	235	3	20
Electric generators	1	<i>Kilo- watts</i> 25	(1)	<i>Kilo- watts</i> (1)	(1)	<i>Kilo- watts</i> (1)

<sup>1</sup> Not called for on schedule.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, AND STOCKS OF SAND-LIME BRICK ON HAND ON DECEMBER 31, FOR THE UNITED STATES, 1914 TO 1925, AND FOR STATES,<sup>1</sup> 1925**

YEAR AND STATE	Total value of products	SAND-LIME BRICK			All other products, <sup>2</sup> value
		Production		Stocks on hand Dec. 31 (expressed in thousands)	
		Quantity (expressed in thousands)	Value		
United States:					
1925.....	\$ 3,798,038	\$ 315,595	\$ 3,780,639	\$ 23,599	\$17,399
1924.....	3,407,567	283,417	3,334,503	21,717	73,064
1923.....	2,499,845	213,425	2,471,536	(4)	28,309
1921.....	1,274,249	97,126	1,268,502	(4)	5,747
1919.....	1,663,052	146,947	1,705,163	(4)	(9)
1914.....	994,199	172,629	1,058,512	(4)	(9)
Florida.....	324,432	26,993	315,225	573	9,207
Michigan.....	1,183,968	97,828	1,175,776	4,591	8,192
Minnesota.....	119,970	14,006	119,970	4,729	-----
New Jersey.....	374,730	30,503	374,730	1,325	-----
Other States:					
Connecticut, Massachusetts, New York.....	843,555	59,923	843,555	5,080	-----
District of Columbia, Indiana, Pennsylvania.....	497,254	43,455	497,254	4,287	-----
Louisiana, Texas.....	105,197	8,282	105,197	687	-----
California, Iowa, South Dakota, Wisconsin.....	348,932	34,605	348,932	2,327	-----

<sup>1</sup> See headnote, Table 5.

<sup>2</sup> Sand and gravel.

<sup>3</sup> Includes, for 1925, production and stocks on hand, and for 1923 and 1921, production only, of sand-lime brick made as a subsidiary product by establishments classified in other industries, as follows: For 1925—3,789 thousands, valued at \$52,546; stocks on hand, 650 thousands. For 1923—production, 8,085 thousands, valued at \$91,739. For 1921—production, 4,121 thousands, valued at \$53,824.

<sup>4</sup> No data.

<sup>5</sup> These figures refer to sand-lime brick marketed during the year and were compiled from data reported to the United States Geological Survey. The values exceed somewhat the values of products shown in the first column, which represent production during the year as reported to the Bureau of the Census.

<sup>6</sup> Included in "Total value of products."

TABLE 5.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaries officers and employees	Wage earners (average number)	
United States.....	41	946	8	137	801	6,396
Florida.....	4	107	—	15	92	511
Michigan.....	12	234	5	37	192	1,453
Minnesota.....	3	66	—	13	53	496
New Jersey.....	3	82	—	7	75	470
All other States <sup>1</sup> .....	19	457	3	65	389	3,466

  

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>2</sup>
United States.....	\$306,939	\$1,118,634	\$19,951	\$1,237,970	\$3,759,729	\$2,521,759
Florida.....	24,750	85,798	—	120,545	328,202	207,657
Michigan.....	91,368	340,158	11,092	448,182	1,192,552	744,370
Minnesota.....	24,307	51,718	—	44,773	116,970	72,197
New Jersey.....	18,320	104,552	—	90,246	374,730	284,484
All other States <sup>1</sup> .....	148,194	536,408	8,859	534,224	1,747,275	1,213,051

<sup>1</sup> California, 1 establishment; Connecticut, 1; District of Columbia, 1; Indiana, 2; Iowa, 1; Louisiana, 1; Massachusetts, 2; New York, 2; Ohio, 1; Pennsylvania, 2; South Dakota, 1; Texas, 2; Wisconsin, 2.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> See Table 4.

# SUMMARY FOR INDUSTRIES IN GROUP 9 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES

[This table presents summary statistics for the industries in Group 9 other than those for which separate reports are given on pp. 860-923. More detailed statistics for 1925 are given, for the United States as a whole, in Table II, p. 1288; and summaries for States and large cities, carrying statistics for these industries in comparison with those for other industries, appear in Tables III and IV, pp. 1302 and 1381. See "General explanations," pp. 3-12; in particular, "Limitation of statistics to establishments reporting products valued at \$5,000 or more," p. 5, "Power equipment," p. 6, "Cost of materials," p. 7, "Value added by manufacture," p. 8, and "State and city statistics," p. 10]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>ASBESTOS PRODUCTS, OTHER THAN STEAM PACKING OR PIPE AND BOILER COVERING<sup>1</sup></b>							
<i>[Principal products: Asbestos textiles, asbestos shingles and other roofing materials, insulating materials, paper, table mats and protectors, household specialties, etc.]</i>							
<i>United States</i>							
1925.....	49	6,129	22,918	\$7,691,801	\$19,225,002	<sup>1</sup> \$36,273,797	\$17,048,795
1923.....	56	8,078	26,855	6,640,022	20,026,265	<sup>1</sup> \$6,820,444	16,794,179
1921.....	40	2,026	( <sup>2</sup> )	1,947,698	6,076,000	13,030,440	6,854,440
1919.....	46	3,654	9,657	3,731,974	12,947,702	23,977,557	11,029,855
<i>States, 1925</i>							
New Jersey.....	9	2,118	8,154	3,078,038	7,406,723	13,039,288	5,632,565
Pennsylvania.....	8	1,079	2,962	1,354,837	2,306,723	4,792,241	2,485,518
All other States <sup>3</sup> .....	32	2,932	11,802	3,258,926	9,511,556	18,442,268	8,930,712

<sup>1</sup> Includes data for the manufacture of asbestos textiles, classified at the census for 1923 as a separate industry in "Textiles and their products," Group 2. (See par. 3, p. 857.)

<sup>2</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of asbestos products, other than steam packing or pipe and boiler covering: 1925, \$7,578,453; corresponding amounts for earlier years not calculated. Does not include the following values of asbestos products made as secondary products by establishments classified in other industries: 1925, \$4,924,785; 1923, \$2,688,067. No comparable data for 1921 and 1919 available.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> California, 3 establishments; Connecticut, 3; Illinois, 5; Indiana, 2; Louisiana, 2; Maryland, 1; Massachusetts, 3; Missouri, 1; New Hampshire, 2; New York, 4; North Carolina, 2; Ohio, 2; Oregon, 1; South Carolina, 1.

## CHINA FIRING AND DECORATING, NOT DONE IN POTTERIES

[The firing and decorating of china for the trade. (Small establishments engaged in such work for private customers or to individual order are not included.) Formerly this industry included a considerable amount of work done on a contract basis on materials owned by others, but at the censuses for 1925 and 1923 only a small amount of such work was reported]

<i>United States</i>							
1925.....	31	333	38	\$385,912	\$672,277	<sup>1</sup> \$1,589,832	\$917,555
1923.....	33	355	49	480,411	609,519	<sup>1</sup> 1,492,609	833,090
1921.....	34	325	( <sup>2</sup> )	397,835	504,270	<sup>1</sup> 1,241,964	737,694
1919.....	43	244	43	244,211	310,785	<sup>1</sup> 866,762	555,977
<i>States, 1925</i>							
Illinois.....	11	124	7	142,593	317,948	761,330	443,382
New Jersey.....	5	56	7	59,683	88,090	177,860	89,870
New York.....	7	97	18	131,124	191,451	469,855	278,404
All other States <sup>3</sup> .....	8	56	6	52,512	74,788	180,687	105,899

<sup>1</sup> Does not include the following values of decorated china reported as secondary products by establishments classified in other industries: 1923, \$199,673; 1921, \$46,551; 1919, \$58,398; no comparable data for 1925.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 2 establishments; Colorado, 1; Connecticut, 1; Indiana, 1; Ohio, 2; West Virginia, 1.

## SUMMARY FOR INDUSTRIES IN GROUP 9 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 924]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>CRUCIBLES</b>							
<i>[Principal products: Crucibles of all kinds, including glasshouse pots, made largely from fire clay and plumbago (graphite)]</i>							
<i>United States</i>							
1925.....	11	284	1,476	\$380,783	\$754,817	<sup>1</sup> \$2,091,518	\$1,336,701
1923.....	13	516	1,647	626,678	1,226,159	<sup>1</sup> 3,467,816	2,241,657
1921.....	17	412	( <sup>2</sup> )	495,973	827,288	<sup>1</sup> 1,869,830	1,142,642
1919.....	22	848	2,714	923,287	2,233,072	<sup>1</sup> 5,293,688	3,060,616
<i>States, 1925</i>							
Pennsylvania.....	5	114	744	167,950	420,665	1,196,652	775,987
All other States <sup>3</sup> .....	6	170	732	212,833	334,152	894,866	560,714

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of crucibles: 1925, \$75,257; corresponding amounts for earlier years not calculated. Does not include the following values of crucibles made as secondary products by establishments classified in other industries: 1925, \$1,869,105; 1923, \$809,971; 1921, \$564,398; 1919, \$1,570,579.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 1 establishment; Indiana, 1; Massachusetts, 1; New Jersey, 2; New York, 1.

**EMERY WHEELS AND OTHER ABRASIVE AND POLISHING APPLIANCES**

*[Principal products: Abrasive wheels of emery, corundum, and other materials; buffing and polishing wheels and disks of leather, cloth, canvas, and wood]*

<i>United States</i>							
1925.....	63	3,352	11,654	\$4,770,354	\$11,104,457	<sup>1</sup> \$25,730,434	\$14,625,977
1923.....	57	3,595	11,530	4,707,834	10,698,320	<sup>1</sup> 25,306,812	14,608,492
1921.....	53	2,849	( <sup>2</sup> )	2,876,413	6,183,515	<sup>1</sup> 12,558,834	6,375,319
1919.....	60	5,601	12,963	5,878,748	12,228,187	<sup>1</sup> 30,949,270	18,721,083
<i>States, 1925</i>							
Connecticut.....	4	74	348	78,395	445,846	764,940	319,094
Illinois.....	11	119	200	169,752	569,273	1,268,719	699,446
Massachusetts.....	12	1,831	7,832	3,027,473	6,017,839	15,138,165	9,120,326
Michigan.....	3	114	255	146,883	252,143	631,008	378,865
New York.....	11	185	294	202,880	741,671	1,285,177	543,506
Ohio.....	6	231	191	187,222	477,289	969,868	492,579
Pennsylvania.....	8	423	1,665	597,442	1,130,993	3,137,995	2,007,002
All other States <sup>3</sup> .....	8	375	869	360,807	1,469,403	2,534,562	1,065,159

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of emery wheels and other abrasive and polishing appliances: 1925, \$374,129; corresponding amounts for earlier years not calculated. Abrasives are made to a considerable extent by establishments classified in other industries, but the value of the abrasives thus made outside the industry can not be shown without the possibility of disclosing operations of individual establishments.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Indiana, 1 establishment; Missouri, 1; New Jersey, 3; Rhode Island, 1; Washington, 1; Wisconsin, 1.

**GLASS CUTTING, STAINING, AND ORNAMENTING**

*[Glass cutting, glass beveling, bending sheet glass, engraving on glass, making glass labels, and staining and ornamenting glass. Products include cut-glass tableware; scientific glass apparatus; leaded, stained, and art-glass windows; and druggists' glassware]*

<i>United States</i>							
1925.....	410	4,860	3,531	\$6,516,711	\$13,330,933	<sup>1</sup> \$27,943,048	\$14,612,115
1923.....	434	5,157	4,732	6,042,204	11,808,836	<sup>1</sup> 25,026,557	13,217,721
1921.....	462	4,682	( <sup>2</sup> )	5,574,401	10,807,878	<sup>1</sup> 22,209,476	11,401,598
1919.....	616	6,480	5,042	6,154,831	14,357,878	<sup>1</sup> 28,443,321	14,085,443
<i>States, 1925</i>							
California.....	27	126	139	232,686	328,005	825,010	497,005
Connecticut.....	7	209	188	282,171	1,212,607	1,838,382	825,775
Illinois.....	37	301	205	501,906	765,220	1,772,308	1,007,088

See footnotes on next page at end of this section



## SUMMARY FOR INDUSTRIES IN GROUP 9 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 924]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>GLASS CUTTING, STAINING, AND ORNAMENTING—Continued</b>							
<i>States, 1925—Con.</i>							
Indiana.....	7	106	167	\$97,683	\$311,954	\$495,343	\$183,389
Maryland.....	10	79	44	85,741	232,094	410,729	178,635
Massachusetts.....	24	414	301	562,410	450,303	1,430,659	986,356
Michigan.....	7	98	89	176,763	689,509	1,038,289	348,780
Minnesota.....	7	30	29	32,595	88,448	180,333	97,385
Missouri.....	15	138	98	235,172	178,805	769,843	591,038
New Jersey.....	36	346	244	386,474	500,192	1,229,164	728,972
New York.....	89	1,247	645	1,772,284	4,064,247	8,391,910	4,827,663
Ohio.....	33	539	441	665,476	1,339,196	3,034,812	1,695,616
Pennsylvania.....	68	920	620	1,093,392	2,242,433	4,519,421	2,270,988
Texas.....	4	33	13	48,819	37,116	118,900	81,784
West Virginia.....	6	80	78	76,078	171,472	341,625	170,153
Wisconsin.....	13	68	99	94,392	169,492	512,978	343,486
All other States <sup>1</sup> .....	20	126	131	172,669	549,840	1,021,342	471,502

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in glass cutting, staining, and ornamenting: 1925, \$846,637; corresponding amounts for earlier years not calculated. Does not include the following values of cut, stained, and ornamented glass by establishments engaged primarily in other industries: 1925, \$2,297,723; 1923, \$550,672; 1921, \$1,053,773; 1919, \$1,555,375.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Colorado, 1 establishment; Florida, 1; Georgia, 2; Idaho, 1; Iowa, 2; Kansas, 1; Kentucky, 2; Maine, 1; Nebraska, 1; North Carolina, 1; Oregon, 2; Rhode Island, 2; Virginia, 1; Washington, 2.

## GRAPHITE, GROUND AND REFINED

[The extraction from the ore and the refining of graphite (plumbago or black lead)]

<i>United States <sup>1</sup></i>							
1925.....	<sup>1</sup> 11	228	2,927	\$278,224	\$1,328,188	<sup>1</sup> \$2,569,487	\$1,241,299
1923.....	8	244	2,700	304,437	1,082,018	<sup>2</sup> 2,184,609	1,102,591
1921.....	11	152	( <sup>3</sup> )	185,468	709,441	<sup>1</sup> 1,456,864	753,423
1919.....	24	497	7,445	434,317	1,092,684	<sup>2</sup> 2,239,587	1,146,903

<sup>1</sup> Statistics for States can not be given without disclosing operations of individual establishments.

<sup>2</sup> California, 1 establishment; Illinois, 1; Michigan, 1; New Jersey, 2; New York, 1; Ohio, 1; Pennsylvania, 3; Texas, 1.

<sup>3</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the production of ground and refined graphite: 1925, \$16,429; corresponding amounts for earlier years not calculated. Graphite is produced to a considerable extent by establishments classified in other industries, but the value of graphite thus made outside the industry can not be shown without the possibility of disclosing operations of individual establishments.

<sup>4</sup> Not called for on schedule.

## GRINDSTONES, PULPSTONES, AND MILLSTONES

[Principal products: Grindstones for sharpening, shaping, and smoothing; pulpstones for use in the mechanical reduction of wood to pulp. The production of these stones embraces both quarrying and manufacturing operations, between which there is no sharp line of demarcation. This condition affects somewhat the comparability of the statistics for different census years. (See "The group as a whole," p. 857)]

<i>United States</i>							
1925.....	21	454	3,005	\$559,654	\$291,126	<sup>1</sup> \$1,630,566	\$1,339,440
1923.....	21	647	3,896	691,324	559,551	<sup>1</sup> 2,096,131	1,536,580
1921.....	17	503	( <sup>2</sup> )	514,476	458,453	<sup>1</sup> 1,498,897	1,040,444
1919.....	35	712	3,763	642,363	269,362	<sup>1</sup> 1,436,319	1,166,957
<i>States, 1925</i>							
Ohio.....	12	293	1,732	357,668	153,403	867,299	713,896
West Virginia.....	6	138	1,038	174,567	120,851	636,446	515,595
All other States <sup>3</sup> .....	3	23	235	27,419	16,872	126,821	109,949

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of grindstones, pulpstones, and millstones: 1925, \$85,401; corresponding amounts for earlier years not calculated. Does not include the following values of grindstones made as secondary products by establishments classified in other industries: 1925, \$318,130; 1923, \$187,294; 1921, \$31,294; no comparable data available for 1919.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Illinois, 2 establishments; Michigan, 1.

## SUMMARY FOR INDUSTRIES IN GROUP 9 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 924]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>HONES, WHETSTONES, AND SIMILAR PRODUCTS</b>							
<i>[Principal products: Hones, oilstones, whetstones, scythestones, and other sharpening stones]</i>							
<i>United States<sup>1</sup></i>							
1925.....	6	155	891	\$157,884	\$394,283	\$786,943	\$392,660
1923.....	8	156	1,151	171,842	178,593	546,500	367,907
1921.....	7	95	( <sup>2</sup> )	92,722	97,260	300,475	203,215
1919.....	11	212	1,164	203,001	320,451	793,778	473,327

<sup>1</sup> Statistics for States can not be given without disclosing operations of individual establishments.<sup>2</sup> Indiana, 2 establishments; New Hampshire, 1; New Jersey, 1; New York, 1; Vermont, 1.<sup>3</sup> Does not include the following values of hones, whetstones, and similar products made as secondary products by establishments classified in other industries: 1925, \$54,189; 1923, \$29,862; 1921, \$31,785. No comparable data available for 1919.<sup>4</sup> Not called for on schedule.

## MINERALS AND EARTHS, GROUND OR OTHERWISE TREATED

[The grinding or pulverizing of certain earths, rocks, or minerals, such as emery, flint, ochre, barytes, manganese, chalk, talc, feldspar, sandstone, kaolin, mica, fuller's earth, pumice, slate, etc.]

<i>United States</i>							
1925.....	250	8,762	127,649	\$9,882,383	\$17,164,594	\$42,380,930	\$25,216,336
1923.....	243	8,707	83,471	10,167,575	13,301,230	35,908,723	22,007,493
1921.....	272	6,887	( <sup>2</sup> )	7,297,064	11,521,866	26,173,722	14,651,866
1919.....	419	14,426	127,064	16,309,518	16,270,251	40,067,239	29,796,988
<i>States, 1925</i>							
California.....	11	181	1,756	268,170	424,731	903,305	478,574
Connecticut.....	5	110	1,455	133,134	139,199	335,504	196,305
Florida.....	5	457	3,471	290,533	468,696	1,123,044	654,348
Georgia.....	9	437	3,369	365,656	410,712	2,049,463	1,658,751
Illinois.....	21	549	9,591	740,684	1,184,233	3,934,453	2,760,220
Maryland.....	5	99	1,694	108,967	146,300	393,072	246,772
Massachusetts.....	9	121	1,408	165,177	494,412	994,315	499,903
Missouri.....	8	172	1,299	159,090	81,588	393,926	312,338
New Hampshire.....	4	109	218	73,278	215,882	395,048	179,166
New Jersey.....	14	364	4,731	499,091	1,172,479	2,570,587	1,398,108
New York.....	25	802	12,780	1,155,154	1,678,621	4,416,932	2,738,311
North Carolina.....	8	285	1,673	197,996	332,366	868,414	536,048
Ohio.....	21	561	10,956	688,353	1,210,835	2,924,297	1,713,462
Pennsylvania.....	52	2,629	51,598	3,016,298	5,688,075	11,719,142	6,061,077
Texas.....	3	70	610	57,813	277,794	602,866	325,072
Vermont.....	8	291	5,045	357,337	315,953	1,666,166	1,350,183
Virginia.....	5	107	927	119,935	176,901	472,838	295,937
West Virginia.....	12	834	8,376	1,030,872	695,231	2,980,770	2,285,539
All other States <sup>3</sup> .....	25	534	6,697	454,845	2,080,556	3,636,788	1,556,232

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in grinding or otherwise treating minerals and earths: 1925, \$1,614,853; corresponding amounts for earlier years not calculated. Does not include the following values of minerals and earths, ground or otherwise treated, by establishments engaged primarily in other industries: 1925, \$1,044,086; 1923, \$774,321; 1921, \$951,739; 1919, \$321,960.<sup>2</sup> Not called for on schedule.<sup>3</sup> Alabama, 2 establishments; Delaware, 2; Indiana, 2; Kentucky, 2; Maine, 3; Michigan, 1; Nebraska, 1; Oklahoma, 2; Rhode Island, 1; South Carolina, 1; Tennessee, 2; Washington, 1; Wisconsin, 4; Wyoming, 1.

## STATUARY AND ART GOODS, FACTORY PRODUCT

[Principal products: Ornamental plaster work, plaster casts, ecclesiastical statuary, architectural sculpture, cast-bronze statues, and other art goods of cement, plaster, and composition. The cutting of marble and other stone statues, when done in factories, is included in this industry. (The production of statuary by individual sculptors in their own studios is not, of course, a manufacturing process, and therefore is not covered by the census of manufactures.) Bronze statues cast in bronze foundries engaged primarily in the manufacture of other classes of products are included among the products of the "Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper" industry. The term "art goods" is necessarily vague, as there are many products of other industries to which it might be applied; but the art goods covered by this classification are more or less closely related to the art of sculpture.]

<i>United States</i>							
1925.....	137	2,033	1,340	\$4,188,087	\$2,078,478	\$9,320,892	\$7,251,414
1923.....	150	1,807	887	3,243,690	1,897,528	7,550,015	5,652,487
1921.....	138	1,634	( <sup>2</sup> )	2,741,429	1,715,217	6,666,964	4,951,747
1919.....	195	1,466	682	1,716,067	1,378,540	5,019,521	3,640,981

See footnotes on next page at end of this section

## SUMMARY FOR INDUSTRIES IN GROUP 9 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 924]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>STATUARY AND ART GOODS, FACTORY PRODUCT—Continued</b>							
<i>States, 1925</i>							
California.....	18	192	32	398, 584	126, 674	763, 947	637, 273
Illinois.....	15	568	298	1, 265, 155	745, 377	3, 036, 408	2, 291, 031
Massachusetts.....	10	111	225	218, 823	140, 610	607, 552	466, 942
Michigan.....	3	38	5	104, 098	14, 886	157, 884	142, 998
Missouri.....	5	62	89	113, 552	86, 357	309, 136	222, 779
New Jersey.....	7	35	7	57, 023	55, 401	166, 298	110, 897
New York.....	32	568	283	1, 270, 569	484, 681	2, 444, 387	1, 959, 706
Ohio.....	6	58	60	130, 344	55, 160	324, 160	269, 000
Pennsylvania.....	13	136	98	200, 802	154, 799	548, 467	393, 668
Washington.....	3	17	46	36, 140	15, 447	77, 898	62, 451
Wisconsin.....	5	39	34	148, 275	52, 907	314, 326	261, 419
All other States <sup>1</sup> .....	20	159	163	244, 722	146, 179	579, 429	433, 250

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of statuary and art goods: 1925, \$93,146; corresponding amounts for earlier years not calculated. Does not include the following values of statuary and art goods made as secondary products by establishments classified in other industries: 1925, \$447,791; 1923, \$217,024; 1921, \$39,907; 1919, \$226,471.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Arizona, 1 establishment; Colorado, 2; Connecticut, 2; District of Columbia, 1; Georgia, 1; Kentucky, 1; Louisiana, 1; Maryland, 2; Minnesota, 3; Nebraska, 1; Oregon, 2; Texas, 2; Virginia, 1.

## WALL PLASTER, WALL BOARD, AND FLOOR COMPOSITION

[Principal products: Gypsum plaster and other ready-mixed wall plasters and similar preparations, such as hard wall plaster, plaster wainscoting, fiber plaster, stucco, calcined plaster, molding plaster, plaster board, asphalt mastic, and ornamental plasterwork for interior decoration; gypsum and other wall boards; floor composition. The manufacture of wall board, other than gypsum wall board, was, for censuses prior to 1923, treated as a part of the "Pulp goods" industry (Group 4, p. 584), but such wall board has since been classified as a product of this industry]

<i>United States</i>							
1925 <sup>1</sup> .....	222	10, 978	82, 863	\$16, 078, 362	\$39, 553, 463	<sup>2</sup> \$90, 957, 045	\$51, 403, 582
1923 <sup>1</sup> .....	195	9, 289	62, 520	14, 893, 572	33, 124, 267	<sup>2</sup> 73, 800, 539	40, 676, 272
1921 <sup>1</sup> .....	144	4, 898	( <sup>3</sup> )	6, 997, 050	16, 116, 801	<sup>2</sup> 32, 353, 697	16, 236, 896
1919 <sup>1</sup> .....	161	5, 123	32, 356	5, 833, 617	11, 821, 465	<sup>2</sup> 26, 874, 657	15, 053, 192
<i>States, 1925</i>							
California.....	33	955	7, 311	1, 515, 026	5, 064, 679	8, 840, 641	3, 775, 962
Florida.....	3	101	77	119, 278	102, 840	307, 753	204, 913
Illinois.....	15	79	741	125, 541	1, 147, 700	2, 123, 592	975, 892
Iowa.....	11	975	9, 533	1, 410, 316	2, 845, 878	7, 002, 369	4, 156, 491
Kansas.....	4	146	1, 625	188, 195	410, 413	995, 689	585, 276
Kentucky.....	3	27	135	36, 308	324, 018	494, 338	170, 320
Maryland.....	4	67	268	85, 261	129, 592	390, 848	261, 256
Massachusetts.....	3	43	444	52, 854	221, 594	552, 767	331, 173
Michigan.....	14	956	8, 737	1, 429, 448	3, 686, 680	8, 843, 715	5, 157, 035
Missouri.....	3	41	252	57, 872	174, 042	343, 804	169, 762
Nevada.....	4	331	4, 222	557, 999	782, 207	1, 538, 074	755, 867
New Jersey.....	8	368	1, 594	631, 275	1, 287, 758	3, 068, 833	1, 781, 075
New York.....	41	3, 336	23, 000	5, 535, 211	13, 177, 700	28, 160, 236	14, 982, 536
Ohio.....	17	1, 119	5, 746	1, 595, 914	2, 672, 070	8, 703, 847	6, 031, 777
Oregon.....	5	32	96	49, 296	134, 030	201, 434	67, 404
Pennsylvania.....	10	136	255	191, 424	563, 587	1, 238, 908	675, 321
Texas.....	5	501	4, 119	745, 184	1, 488, 281	3, 886, 878	2, 398, 597
Washington.....	5	77	643	102, 682	470, 640	779, 245	308, 605
All other States <sup>4</sup> .....	34	1, 688	13, 187	1, 649, 278	4, 869, 754	13, 484, 074	8, 614, 320

<sup>1</sup> Statistics for 1921 and 1919 are not strictly comparable with those for 1925 and 1923. (See headnote.)

<sup>2</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of wall plaster, wall board, and floor composition: 1925, \$1,288,574; corresponding amounts for earlier years not calculated. Does not include the following values of wall plaster, wall board, and floor composition made as secondary products by establishments classified in other industries: 1925, \$769,494; 1923, \$673,310; 1919, \$675,564; no comparable data for 1921 available.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Arizona, 2 establishments; Colorado, 1; Connecticut, 2; Georgia, 1; Indiana, 2; Louisiana, 2; Minnesota, 3; Montana, 1; Nebraska, 2; New Mexico, 1; Oklahoma, 4; South Dakota, 2; Utah, 2; Vermont, 1; Virginia, 2; West Virginia, 1; Wisconsin, 3; Wyoming, 2.

## Group 10.—METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL

### THE GROUP AS A WHOLE

This group comprises industries engaged in the production of nonferrous metals from the ores or from scrap metals; in the refining or alloying of such metals; and in the manufacture, from these metals or alloys as basic materials, of finished products or products for use in further manufacturing processes.

The principal metals or ores which form the basic materials used in these industries are copper, lead, zinc, tin, gold, silver, and aluminum. It should be noted, however, that these same basic metals are used to a large extent in certain industries assigned to other groups; for example, "Electrical machinery, apparatus, and supplies" and other industries of the "Machinery, not including transportation equipment" group. A number of industries in the "Iron and steel and their products, not including machinery," and "Miscellaneous industries" groups also manufacture various classes of machinery, tools, and other commodities made wholly or in part from metals other than iron and steel.

Since the metals and alloys produced by the basic industries of Group 10 are used as materials by other industries in the group, there is a considerable amount of duplication in the total cost of materials and the total value of products for the group as a whole. (See "Duplication in cost of materials and value of products," p. 8.)

The basic industries which extract the metals from the ore or refine or alloy them usually add relatively little to the value of the raw materials which they use, while the more highly elaborated manufacturing processes employed by the industries which use these metals and alloys as materials add very considerably to their value.

Summary statistics for the group as a whole, by subgroups and by separate industries, are given on page 930. On pages 933 to 971 are presented detailed reports for those industries in Group 10 for which statistics have been published separately in pamphlet form; and following these reports (pp. 972 to 978) are given brief descriptions and summary statistics for the 13 industries in this group, for which separate reports have not been prepared.

## SUMMARY FOR GROUP 10, METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL: 1919 TO 1925

[Data for establishments reporting products valued at less than \$5,000 are included in the figures for 1919 but not in those for subsequent years]

INDUSTRY	Cen- sus year	Number of estab- lish- ments	Wage earners (average number)	Wages	Cost of materials	Value of products	Value added by manu- facture	Horse- power
Total.....	1925	6,924	275,292	380,781	1,946,777	2,833,770	886,993	1,158,486
	1923	7,433	296,911	394,024	1,767,072	2,634,031	866,959	1,168,656
	1921	7,801	212,354	256,251	885,840	1,406,873	521,033	(1)
	1919	10,346	304,195	358,638	1,737,024	2,517,417	780,393	951,770
Metals.....	1925	1,205	66,393	95,986	490,183	688,798	198,615	378,915
	1923	1,223	67,972	93,384	446,696	644,173	197,477	318,951
	1921	1,115	42,889	50,380	202,052	297,607	95,555	(1)
	1919	1,329	78,919	98,925	417,039	613,987	196,948	280,071
Babbitt metal, white metal, type metal, and solder.	1925	87	1,465	2,221	44,081	50,650	6,569	3,907
	1923	83	1,497	1,969	33,964	41,487	7,523	4,004
	1921	98	1,372	1,880	22,355	26,255	3,900	(1)
	1919	118	2,372	2,882	48,844	59,017	10,173	6,020
Brass, bronze, and other non- ferrous alloys, and manu- factures of these alloys and of copper, not specifically classified. <sup>2</sup>	1925	1,044	62,942	90,613	337,641	519,725	182,084	361,242
	1923	1,035	64,713	88,839	331,756	511,470	179,714	305,839
	1921	911	39,830	46,260	130,627	214,904	84,277	(1)
	1919	1,092	75,051	94,132	304,824	482,313	177,489	265,373
Gold, silver, and platinum, reducing and refining, not from the ore.	1925	65	1,258	2,166	88,867	95,243	6,376	9,676
	1923	76	901	1,361	65,089	71,921	6,832	4,620
	1921	77	785	1,131	41,056	45,974	4,918	(1)
	1919	87	644	844	49,737	55,483	5,746	3,141
Lead: Bar, pipe, and sheet....	1925	29	728	986	19,594	23,180	3,586	4,090
	1923	29	861	1,215	15,887	19,295	3,408	4,488
	1921	29	882	1,109	8,014	10,474	2,460	(1)
	1919	32	852	1,067	13,634	17,174	3,540	5,537
Smelting and refining.....	1925	173	35,936	52,627	981,326	1,149,264	167,938	474,336
	1923	130	40,691	59,594	851,738	999,954	148,216	555,644
	1921	145	20,214	26,677	378,364	445,182	66,818	(1)
	1919	192	41,787	58,742	889,432	1,022,340	132,908	464,503
Copper.....	1925	26	15,588	22,642	573,190	665,177	91,987	326,509
	1923	29	16,777	25,459	554,100	625,433	71,333	332,943
	1921	28	8,293	11,199	205,904	234,895	28,991	(1)
	1919	34	17,345	25,723	584,410	651,102	66,692	321,610
Lead.....	1925	17	6,115	9,001	254,881	283,043	28,162	47,219
	1923	20	6,194	8,768	207,315	227,735	20,420	42,377
	1921	23	4,509	5,958	134,061	150,594	16,533	(1)
	1919	25	6,438	9,180	179,374	196,795	17,421	49,668
Metals other than gold, sil- ver, or platinum, not from the ore.	1925	102	2,944	4,679	69,263	82,138	12,875	14,240
	1923	41	1,587	2,224	29,049	35,785	6,736	9,654
	1921	60	1,200	1,523	10,032	15,150	5,118	(1)
	1919	81	2,167	3,093	40,676	50,246	9,570	7,921
Metals, not elsewhere classi- fied. <sup>3</sup>	1923	4	257	387	4,541	5,382	841	1,144
	1921	5	434	748	4,055	7,060	3,005	(1)
	1919	13	2,041	2,963	14,957	20,074	5,117	11,700
Zinc.....	1925	28	11,289	16,305	83,992	118,906	34,914	86,368
	1923	35	11,918	16,896	64,134	94,184	30,050	69,583
	1921	29	5,778	7,244	24,312	37,483	13,171	(1)
	1919	39	13,796	17,783	70,015	104,123	34,108	73,604

See footnotes at end of table

SUMMARY FOR GROUP 10, METALS AND METAL PRODUCTS, OTHER THAN IRON  
AND STEEL: 1919 TO 1925—Continued

[See note at head of this summary, p. 930]

INDUSTRY	Cen- sus year	Num- ber of estab- lish- ments	Wage earners (average number)	Wages	Cost of materials	Value of products	Value added by manu- facture	Horse- power
Expressed in thousands of dollars								
<b>Metal products.....</b>	1925	5,097	169,626	226,914	472,727	983,267	510,540	294,492
	1923	5,634	184,874	235,851	466,025	977,607	511,582	284,556
	1921	6,149	146,811	175,631	303,464	656,043	352,579	(1)
	1919	8,310	180,465	197,177	427,914	870,700	442,786	200,408
<b>Aluminum manufactures.....</b>	1925	127	14,353	19,753	84,985	127,831	42,846	62,366
	1923	119	16,288	19,844	66,659	106,930	40,271	58,272
	1921	87	9,584	10,836	25,953	45,822	19,869	(1)
	1919	83	11,402	13,327	49,272	75,278	26,006	30,280
<b>Bells.....</b>	1923	9	218	226	328	792	464	426
	1921	9	203	200	277	645	368	(1)
	1919	10	237	205	450	951	501	783
<b>Clocks, time-recording de- vices, and clock move- ments.</b>	1925	45	7,945	9,238	8,920	29,379	20,459	8,614
	1923	38	9,359	9,879	8,172	28,553	20,381	8,285
	1921	37	6,535	6,558	6,591	17,750	11,159	(1)
	1919	46	8,252	7,862	7,178	23,380	16,202	6,952
<b>Copper, tin, and sheet-iron work, including galva- nized-iron work, not else- where classified.</b>	1925	2,107	24,996	37,825	84,080	175,043	90,963	35,273
	1923	2,524	28,852	42,446	93,507	188,908	95,401	34,243
	1921	3,105	25,172	36,582	75,896	148,776	72,880	(1)
	1919	4,796	27,640	33,867	80,898	160,314	79,416	24,130
<b>Fire extinguishers, chemical..</b>	1925	26	842	1,131	4,122	8,087	3,915	1,440
	1923	26	762	847	3,366	6,152	2,786	1,235
	1921	31	580	626	2,081	4,254	2,173	(1)
	1919	32	777	751	2,693	5,563	2,870	855
<b>Gas and electric fixtures, not including lamps and re- flectors.</b>	1925	329	11,565	16,534	28,249	68,841	40,592	13,728
	1923	350	12,315	15,654	25,966	61,750	35,784	13,818
	1921	308	9,419	11,060	18,788	42,890	24,102	(1)
	1919	341	9,795	9,802	20,259	42,268	22,009	9,656
<b>Gold and silver, leaf and foil.</b>	1925	84	1,148	1,113	1,839	3,746	1,907	326
	1923	64	918	934	1,897	3,562	1,665	281
	1921	72	1,104	1,042	4,995	7,014	2,019	(1)
	1919	87	950	984	2,655	4,461	1,806	408
<b>Jewelry.....</b>	1925	1,468	23,837	35,177	79,686	166,816	86,930	17,206
	1923	1,622	26,354	36,424	83,983	174,034	90,051	16,851
	1921	1,671	23,452	29,938	58,059	127,231	69,172	(1)
	1919	2,054	30,871	35,864	110,451	203,939	93,488	15,096
<b>Lamps and reflectors, not including electric bulbs.</b>	1925	188	10,769	14,538	29,521	60,857	31,336	16,310
	1923	185	10,604	13,443	26,674	57,229	30,555	16,716
	1921	157	6,447	7,463	14,014	29,164	15,150	(1)
	1919	171	8,360	9,293	18,429	38,099	19,670	12,622
<b>Needles, pins, hooks and eyes, and snap fasteners.</b>	1925	48	5,850	5,856	5,926	18,174	12,248	7,603
	1923	49	6,884	6,708	7,796	22,147	14,351	10,367
	1921	68	6,542	5,542	6,163	18,896	12,738	(1)
	1919	92	9,294	8,810	10,227	29,305	19,078	8,423
<b>Pens, gold.....</b>	1925	13	226	299	589	1,115	526	121
	1923	15	428	658	1,257	2,320	1,063	191
	1921	12	289	376	632	1,335	703	(1)
	1919	15	416	517	962	1,801	839	145

See footnotes at end of table

## SUMMARY FOR GROUP 10, METALS AND METAL PRODUCTS, OTHER THAN IRON AND STEEL: 1919 TO 1925—Continued

[See note at head of this summary, p. 930]

INDUSTRY	Cen- sus year	Num- ber of estab- lish- ments	Wage earn- ers (average number)	Wages	Cost of materials	Value of products	Value added by manu- facture	Horse- power
Expressed in thousands of dollars								
<b>Metal products—Con.</b>								
Plated ware.....	1925	90	11,290	15,236	20,071	54,330	34,259	23,914
	1923	83	12,118	15,641	19,814	53,899	34,085	22,390
	1921	66	9,535	10,664	12,409	33,944	21,535	( <sup>1</sup> )
	1919	68	9,492	10,913	17,766	41,635	23,869	14,212
Silversmithing and silver- ware.	1925	93	5,587	8,607	13,106	32,532	19,426	7,770
	1923	98	4,972	7,330	10,859	27,207	16,348	7,234
	1921	103	5,287	7,151	8,965	24,411	15,446	( <sup>1</sup> )
	1919	99	6,453	7,359	13,061	29,126	16,065	6,843
Stamped and enameled ware, not elsewhere classified. †	1925	370	29,704	36,107	77,487	154,096	76,609	64,346
	1923	329	35,237	42,636	84,518	170,923	86,405	68,326
	1921	324	24,192	26,862	48,233	100,585	52,352	( <sup>1</sup> )
	1919	323	34,248	34,851	65,457	143,654	78,197	51,283
Tin and other foils, not in- cluding gold and silver; col- lapsible tubes.	1925	26	3,618	4,001	21,342	30,060	8,718	18,712
	1923	24	3,323	3,522	14,515	23,465	8,950	12,595
	1921	22	2,178	2,557	9,265	14,037	4,772	( <sup>1</sup> )
	1919	15	1,908	1,759	13,008	17,921	4,913	6,991
Watch and clock materials and parts, except watch- cases.	1925	25	501	480	376	1,363	987	219
	1923	25	396	380	379	1,289	910	170
	1921	23	390	375	357	1,086	729	( <sup>1</sup> )
	1919	27	582	413	549	1,342	793	252
Watchcases.....	1925	45	3,480	4,462	6,050	14,793	8,743	4,106
	1923	57	4,325	5,414	7,499	17,817	10,318	5,710
	1921	37	3,698	4,217	5,625	13,806	8,181	( <sup>1</sup> )
	1919	33	3,900	4,001	8,206	19,619	11,413	4,275
Watches and watch move- ments.	1925	13	13,915	16,557	6,178	36,254	30,076	12,348
	1923	17	11,571	13,870	8,836	30,630	21,794	7,396
	1921	17	12,174	13,602	5,161	24,397	19,236	( <sup>1</sup> )
	1919	18	15,888	16,599	6,393	32,044	25,651	7,202
<b>Electroplating</b> .....	1925	449	3,337	5,254	2,541	12,441	9,900	10,743
	1923	446	3,374	5,195	2,613	12,297	9,684	9,505
	1921	392	2,460	3,563	1,960	8,041	6,081	( <sup>1</sup> )
	1919	515	3,024	3,794	2,639	10,390	7,751	6,788

<sup>1</sup> Not called for on schedule.<sup>2</sup> Includes data for bells, shown as a separate industry under "Metal products" in previous reports.<sup>3</sup> None reported for 1925.<sup>4</sup> Abandoned as a separate industry classification; statistics for 1925 included with those for "Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper, not specifically classified."<sup>5</sup> Figures for 1925 not strictly comparable with those for 1923 because of the classification of the reports of several establishments in other industries.

# ALUMINUM MANUFACTURES

[A preliminary report for this industry was issued under date of January 19, 1927]

**Description of the industry.**—This industry classification embraces establishments engaged in the manufacture of aluminum plates and sheets; motor-vehicle and other commercial castings; cooking, kitchen, and household utensils; bottle closures, and other aluminum products. The manufacture of pig aluminum from the ore is not included in this industry, but is treated as part of the "Chemicals" industry. Establishments engaged in the recovery of aluminum from scrap are treated for census purposes as part of the "Smelting and refining, metals other than gold, silver, or platinum, not from the ore" industry. The value of aluminum ingots made from scrap is, however, included in the item "Ingots" in Table 4, p. 935.

**Products.**—A special schedule providing for detailed data for specified classes of aluminum products, was first used at the census for 1925. For this reason no comparative commodities statistics are available for earlier census years.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925.....	127	14,353	\$19,753,349	\$93,099	\$84,984,923	\$127,830,756	\$42,845,833	62,366
1923.....	119	16,288	19,843,546	94,559	66,659,519	106,930,367	40,270,848	58,272
1921.....	87	9,584	10,835,597	8,926	25,952,529	45,822,161	19,869,632	( <sup>3</sup> )
1919.....	83	11,402	13,327,306	10,887	49,271,861	75,277,948	26,006,087	30,280
1914.....	37	4,614	2,611,251	1,936	14,421,319	19,597,465	5,176,146	* 12,297
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925.....	6.7	-11.9	-0.5	-1.5	27.5	19.5	6.4	7.0
1921-1923.....	( <sup>4</sup> )	69.9	83.1	959.4	156.9	133.4	102.7	-----
1921-1925.....	( <sup>5</sup> )	49.8	82.3	943.0	227.5	179.0	115.6	-----
1914-1925.....	( <sup>5</sup> )	211.1	656.5	( <sup>5</sup> )	489.3	552.3	727.8	407.2

<sup>1</sup> Including also cost of fuel, electric power, and containers.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> This figure differs slightly from the corresponding one published in the report for 1914 because of the exclusion here and the inclusion in the previous report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>5</sup> Not shown where base is less than 100 or where percentage is higher than 1,000.



**TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925**

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 5, p. 935]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	14,353	13,837	13,990	14,218	14,314	14,277	14,400
1923 <sup>1</sup> .....	16,288	17,143	17,601	18,204	17,946	17,547	17,095
1921 <sup>1</sup> .....	9,584	10,495	10,686	11,067	9,805	9,381	8,308
1919 <sup>1</sup> .....	11,402	9,749	9,658	9,912	9,991	10,696	11,002
California.....	93	81	80	80	91	113	101
Illinois.....	563	598	596	592	575	505	511
Indiana.....	163	153	139	146	178	202	203
Massachusetts.....	165	192	165	152	148	153	145
Missouri.....	58	59	59	61	58	57	58
Ohio.....	2,219	2,046	2,121	2,113	2,111	2,237	2,267
Wisconsin.....	2,826	2,880	2,937	2,995	2,788	2,572	2,549

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	Septem-ber	October	Novem-ber	Decem-ber
United States:						
1925 <sup>1</sup> .....	14,493	14,054	14,306	14,733	14,813	14,798
1923 <sup>1</sup> .....	16,421	15,765	14,676	14,435	14,438	14,188
1921 <sup>1</sup> .....	7,847	8,595	8,919	9,667	10,150	10,060
1919 <sup>1</sup> .....	11,964	12,027	11,715	12,444	13,543	14,105
California.....	107	104	90	88	86	98
Illinois.....	536	551	556	582	590	559
Indiana.....	172	163	159	165	139	137
Massachusetts.....	152	139	168	188	207	172
Missouri.....	59	61	61	60	56	50
Ohio.....	2,399	2,327	2,298	2,179	2,245	2,290
Wisconsin.....	2,543	2,560	2,807	3,063	3,119	3,101

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by italic figures. Per cent which minimum forms of maximum: 1925, 93.4; 1923, 77.9; 1921, 70.7; 1919, 68.5.

**TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919**

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power
Prime movers, total.....	2,941	62,366	2,496	58,272	986	30,280
Steam engines.....	12	4,690	42	16,675	19	4,859
Steam turbines.....	7	8,083			12	7,513
Internal-combustion engines.....	6	855			9	1,108
Water wheels and turbines.....					1	80
Electric motors driven by purchased current.....	2,916	48,738	2,450	41,472	945	16,725
Electric motors, total.....	4,036	63,713	3,480	61,110	1,570	27,334
Driven by purchased current.....	2,916	48,738	2,450	41,472	945	16,725
Driven by current generated in establish-ment reporting.....	1,120	14,975 Kilo-watts	1,030	19,638 Kilo-watts	625	10,609 Kilo-watts
Electric generators.....	16	9,007	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1925

[This table does not include data for the production of pig aluminum from the ore]

PRODUCT	1925
Total value.....	\$147,085,525
Aluminum-manufactures industry, all products.....	127,830,756
Aluminum manufactures.....	122,036,577
All other products, value, and receipts for custom and repair work.....	5,794,179
Aluminum manufactures, secondary products of other industries.....	19,254,769
Aluminum manufactures, total, all industries.....	141,291,346
Ware (principally cooking utensils and household articles).....	32,052,179
Motor-vehicle parts (chiefly castings).....	9,404,048
Castings, other than motor-vehicle.....	29,339,957
Ingot produced for sale <sup>1</sup> .....	10,444,685
All other aluminum manufactures, including rolled forms (bars, plates, and sheets).....	60,050,477

<sup>1</sup> Includes ingots recast from pig aluminum, and ingots made from scrap aluminum.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	127	15,828	53	1,422	14,353	62,366
California.....	7	109	6	10	93	390
Illinois.....	9	630	7	60	563	1,299
Indiana.....	7	184	6	15	163	419
Massachusetts.....	7	200	5	30	165	2,993
Missouri.....	6	74	3	13	58	130
Ohio.....	24	2,451	7	225	2,219	6,889
Wisconsin.....	14	3,216	6	384	2,826	11,892
All other States <sup>1</sup> .....	53	8,964	13	685	8,266	38,554

  

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>1</sup>
United States.....	\$2,939,898	\$19,753,349	\$93,099	\$84,984,923	\$127,830,756	\$42,845,833
California.....	23,110	137,220	4,647	183,715	456,328	272,613
Illinois.....	69,602	823,135	13,481	2,217,082	3,765,788	1,548,706
Indiana.....	45,362	234,192	1,081,703	1,821,989	1,821,989	740,286
Massachusetts.....	95,992	224,205	51,158	682,996	1,185,849	502,853
Missouri.....	27,483	94,376	4,406	209,448	389,512	180,064
Ohio.....	474,792	3,304,513	2,268	8,435,204	14,503,484	6,068,280
Wisconsin.....	663,436	3,159,185	9,042,042	9,042,042	19,813,231	10,771,189
All other States <sup>1</sup> .....	1,540,121	11,776,518	17,139	63,132,733	85,894,575	22,761,842

<sup>1</sup> Colorado, 2 establishments; Connecticut, 4; Kansas, 1; Michigan, 10; Minnesota, 2; Nebraska, 1; New Jersey, 10; New York, 11; Pennsylvania, 8; Rhode Island, 1; Tennessee, 1; Washington, 2.<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)<sup>3</sup> See first 5 lines, Table 4.

# CLOCKS, WATCHES, AND PARTS

[A preliminary report for these industries was issued under date of February 19, 1927]

**Description of the industry.**—This report covers four industries, whose primary products are, respectively, (1) clocks, clock movements, and time-recording devices; (2) watches and watch movements; (3) watchcases; (4) clock and watch materials and parts, except watchcases.

**Decrease in number of establishments.**—The number of establishments in these industries decreased from 137 in 1923 to 128 in 1925, this decrease being the net result of a loss of 40 establishments and a gain of 31. Of the 40 establishments lost to the industry, 5 reported commodities other than clocks, watches, and parts as their principal products for 1925 and were therefore transferred to the appropriate industries, 22 had gone out of business prior to the beginning of the year, 9 did no manufacturing in 1925, 1 was idle during the entire year, and 3 reported products valued at less than \$5,000. (See sec. 10, p. 5.)

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture	Horse-power
<b>THE GROUP AS A WHOLE</b>								
1925.....	128	25,841	\$30,736,750	\$562,085	\$21,524,186	\$81,789,729	\$60,265,543	25,287
1923.....	137	25,651	29,542,894	235,512	24,885,640	78,289,759	53,404,119	21,561
1921.....	114	22,797	24,751,988	259,711	17,733,535	67,038,977	39,305,442	( <sup>3</sup> )
1919.....	124	28,622	28,874,054	295,931	22,325,650	76,384,959	54,059,309	18,681
1914.....	119	23,328	13,495,264	69,554	11,021,491	34,152,535	23,131,044	15,607
Per cent of increase or decrease (—):								
1923-1925.....	-6.6	.7	4.0	138.7	-13.5	4.5	12.8	17.3
1921-1923.....	20.2	12.5	19.4	-9.3	40.3	37.3	35.9	-----
1921-1925.....	12.3	13.4	24.2	116.4	21.4	43.4	53.3	-----
1914-1925.....	7.6	10.8	127.8	708.1	95.3	139.5	160.5	62.0
<b>CLOCKS, TIME-RECORDING DEVICES, AND CLOCK MOVEMENTS</b>								
1925.....	45	7,945	\$9,237,716	\$369,849	\$8,920,104	\$29,379,164	\$20,459,060	8,614
1923.....	38	9,359	9,878,949	33,234	8,172,538	28,553,582	20,381,044	8,285
1921.....	37	6,535	6,558,047	60,048	6,590,966	17,750,060	11,159,094	( <sup>3</sup> )
1919.....	46	8,252	7,861,611	31,534	7,177,813	23,380,190	16,202,377	6,952
1914.....	48	6,754	3,653,146	32,016	4,007,764	11,081,720	7,023,956	4,593
Per cent of increase or decrease (—):								
1923-1925.....	( <sup>3</sup> )	-15.1	-6.5	( <sup>3</sup> )	9.1	2.9	.4	4.0
1921-1923.....	( <sup>3</sup> )	43.2	50.6	-44.7	24.0	60.9	82.6	-----
1921-1925.....	( <sup>3</sup> )	21.6	40.9	515.9	35.3	65.5	83.3	-----
1914-1925.....	( <sup>3</sup> )	17.6	152.9	( <sup>3</sup> )	122.6	166.3	191.3	43.7

See footnotes at end of table

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925—Continued

[See note at head of this table]

YEAR OR PERIOD	Number of es- tablishments	Wage earners (average number)	Wages	Paid for con- tract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufac- ture <sup>2</sup>	Horse- power
<b>WATCHES AND WATCH MOVE- MENTS</b>								
1925-----	13	13,915	\$16,556,685	\$3,163	\$6,178,017	\$36,254,110	\$30,076,093	12,348
1923-----	17	11,571	13,869,688	1,622	8,835,769	30,630,265	21,794,496	7,396
1921-----	17	12,174	13,602,029	84,351	5,160,842	24,396,516	19,235,674	( <sup>3</sup> )
1919-----	18	15,888	16,598,896	225,794	6,392,562	32,044,299	25,651,737	7,202
1914-----	15	12,390	7,524,146	1,400	2,669,511	14,276,279	11,605,768	6,624
Per cent of increase or decrease (-):								
1923-1925-----	( <sup>4</sup> )	20.3	19.4	95.0	-30.1	18.4	38.0	67.0
1921-1923-----	( <sup>4</sup> )	-5.0	2.0	-98.1	71.2	25.6	13.3	-----
1921-1925-----	( <sup>4</sup> )	14.3	21.7	-96.8	19.7	48.6	56.4	-----
1914-1925-----	( <sup>4</sup> )	12.3	120.0	125.9	181.4	154.0	159.1	86.4
<b>WATCHCASES</b>								
1925-----	45	3,480	\$4,462,587	\$181,442	\$6,049,905	\$14,793,211	\$8,743,306	4,106
1923-----	57	4,325	5,414,232	167,691	7,498,768	17,817,046	10,318,278	5,710
1921-----	37	3,698	4,217,210	105,518	5,625,146	13,805,957	8,180,811	( <sup>5</sup> )
1919-----	33	3,900	4,000,727	27,575	8,205,754	19,618,773	11,413,019	4,275
1914-----	31	3,514	1,938,358	35,240	4,001,595	7,830,987	3,829,392	2,369
Per cent of increase or decrease (-):								
1923-1925-----	( <sup>4</sup> )	-19.5	-17.6	8.2	-19.3	-17.0	-15.3	-28.1
1921-1923-----	( <sup>4</sup> )	17.0	28.4	58.9	33.3	29.1	26.1	-----
1921-1925-----	( <sup>4</sup> )	-5.9	5.8	72.0	7.6	7.2	6.9	-----
1914-1925-----	( <sup>4</sup> )	-1.0	130.2	414.9	51.2	88.9	128.3	73.3
<b>WATCH AND CLOCK MATERIALS AND PARTS, EXCEPT WATCH- CASES</b>								
1925-----	25	501	\$479,762	\$7,631	\$376,160	\$1,363,244	\$987,084	219
1923-----	25	396	380,025	32,965	378,565	1,288,866	910,301	170
1921-----	23	390	374,702	9,794	356,581	1,086,444	729,863	( <sup>5</sup> )
1919-----	27	582	412,820	11,028	549,521	1,341,697	792,176	252
1914-----	25	670	379,614	898	342,621	1,014,549	671,928	4621
Per cent of increase or decrease (-):								
1923-1925-----	( <sup>4</sup> )	26.5	26.2	-76.9	-6	5.8	8.4	28.8
1921-1923-----	( <sup>4</sup> )	1.5	1.4	236.6	6.2	18.6	24.7	-----
1921-1925-----	( <sup>4</sup> )	28.5	28.0	-22.1	5.5	25.5	35.2	-----
1914-1925-----	( <sup>4</sup> )	-25.2	26.4	749.8	9.8	34.4	46.9	-64.7

<sup>1</sup> Including also cost of fuel, electric power, and containers.<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)<sup>3</sup> Not called for on schedule.<sup>4</sup> These figures differ slightly from the corresponding ones published in the report for 1914 because of the exclusion here and the inclusion in the previous report of data for purchased power other than electric.<sup>5</sup> Not shown where base is less than 100 or where percentage is higher than 1,000.





TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

INDUSTRY AND TYPE OF PRIME MOVERS, GENERATORS, AND MOTORS	1925		1923		1919	
	Num- ber	Capac- ity	Num- ber	Capac- ity	Num- ber	Capac- ity
<b>THE GROUP AS A WHOLE</b>						
Prime movers, total.....	1,567	Horse- power 25,287	1,509	Horse- power 21,561	801	Horse- power 18,681
Steam engines.....	48	15,929	59	15,450	52	11,800
Steam turbines.....	2	2,168				
Internal-combustion engines.....	10	970	7	516	14	1,551
Water wheels and turbines.....	3	170	4	216	8	511
Electric motors driven by purchased current.....	1,504	6,050	1,439	5,379	724	4,529
Electric motors, total.....	4,401	18,299	4,344	15,378	2,751	12,285
Driven by purchased current.....	1,504	6,050	1,439	5,379	724	4,529
Driven by current generated in establish- ment reporting.....	2,897	12,249	2,905	9,999	2,027	7,756
Electric generators.....	57	Kilo- watts 12,630	(1)	Kilo- watts (1)	(1)	Kilo- watts (1)
<b>CLOCKS, TIME-RECORDING DEVICES, AND CLOCK MOVEMENTS</b>						
Prime movers, total.....	452	Horse- power 8,614	378	Horse- power 8,285	372	Horse- power 6,952
Steam engines.....	14	6,265	21	5,739	18	3,760
Steam turbines.....	2	50				
Internal-combustion engines.....	2	170	3	56	3	62
Water wheels and turbines.....	3	129	3	210	6	255
Electric motors driven by purchased current.....	433	2,179	351	2,280	344	2,725
Electric motors, total.....	2,216	8,199	1,812	7,041	1,220	4,912
Driven by purchased current.....	433	2,129	351	2,280	344	2,725
Driven by current generated in establish- ment reporting.....	1,783	6,070	1,461	4,761	876	2,187
Electric generators.....	13	Kilo- watts 4,121	(1)	Kilo- watts (1)	(1)	Kilo- watts (1)
<b>WATCHES AND WATCH MOVEMENTS</b>						
Prime movers, total.....	570	Horse- power 12,848	356	Horse- power 7,396	201	Horse- power 7,202
Steam engines.....	29	7,314	27	6,151	22	5,900
Steam turbines.....	1	2,133				
Internal-combustion engines.....	3	435	3	435	3	435
Water wheels and turbines.....						
Electric motors driven by purchased current.....	537	2,466	326	810	174	727
Electric motors, total.....	1,142	6,512	1,327	4,081	985	4,192
Driven by purchased current.....	537	2,466	326	810	174	727
Driven by current generated in establish- ment reporting.....	605	4,046	1,001	3,271	811	3,465
Electric generators.....	32	Kilo- watts 6,339	(1)	Kilo- watts (1)	(1)	Kilo- watts (1)
<b>WATCHCASES</b>						
Prime movers, total.....	479	Horse- power 4,106	710	Horse- power 5,710	187	Horse- power 4,275
Steam engines.....	5	2,350	11	3,560	11	2,040
Steam turbines.....	1	35				
Internal-combustion engines.....	4	460			6	1,004
Water wheels and turbines.....					1	250
Electric motors driven by purchased current.....	469	1,261	699	2,150	169	981
Electric motors, total.....	978	3,394	1,142	4,117	509	3,085
Driven by purchased current.....	469	1,261	699	2,150	169	981
Driven by current generated in establish- ment reporting.....	509	2,133	443	1,967	340	2,104
Electric generators.....	12	Kilo- watts 2,170	(1)	Kilo- watts (1)	(1)	Kilo- watts (1)

1 Not called for on schedule.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919—Continued

[No data in regard to prime movers were collected for 1921]

INDUSTRY AND TYPE OF PRIME MOVERS, GENERATORS, AND MOTORS	1925		1923		1919	
	Num- ber	Capac- ity	Num- ber	Capac- ity	Num- ber	Capac- ity
WATCH AND CLOCK MATERIALS AND PARTS, EXCEPT WATCHCASES						
Prime movers, total.....	66	Horse- power 219	65	Horse- power 170	41	Horse- power 252
Steam engines.....					1	100
Steam turbines.....						
Internal-combustion engines.....	1	25	1	25	2	50
Water wheels and turbines.....			1	6	1	6
Electric motors driven by purchased current.....	65	194	63	139	37	96
Electric motors, total.....	65	194	63	139	37	96
Driven by purchased current.....						
Driven by current generated in establish- ment reporting.....	65	194	63	139	37	96
Electric generators.....		Kilo- watts	(1)	Kilo- watts (1)	(1)	Kilo- watts (1)

<sup>1</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY CLASS, NUMBER, AND VALUE, FOR THE UNITED STATES: 1925 AND 1923

CLASS	1925	1923
Total value.....	\$83,379,073	\$78,951,191
Clocks, watches, and parts industry, all products.....	\$81,789,729	\$78,289,759
Clocks, watches, and parts.....	\$75,948,484	\$72,866,444
All other products, values and receipts for custom work and repairing.....	\$5,841,245	\$5,423,315
Clocks, watches, and parts, secondary products of other industries.....	\$1,589,344	\$661,432
Clocks, watches, and parts, total value.....	\$77,537,828	\$73,527,876
Clocks—		
Number of establishments.....	38	33
Number.....	10,972,594	10,417,361
Value.....	\$22,904,050	\$21,605,818
Clock movements—		
Number of establishments.....	8	5
Number.....	591,728	436,783
Value.....	\$1,098,173	\$672,571
Time-recording devices, including watchmen's clocks—		
Number of establishments.....	12	11
Number.....	40,381	29,710
Value.....	\$2,745,579	\$2,946,867
Clock materials and parts, including cases—		
Number of establishments.....	18	17
Value.....	\$628,571	\$1,179,115
Watch movements—		
Number of establishments.....	10	16
Number.....	2,199,334	1,980,636
Value.....	\$22,980,888	\$20,904,113
Watchcases—		
Number of establishments.....	46	52
Number.....	4,720,689	4,289,317
Value.....	\$15,135,049	\$15,123,360
Clock watches (nonjeweled watches)—		
Number of establishments.....	6	5
Number.....	9,213,138	9,041,887
Value.....	\$10,141,593	\$8,456,287
Watch materials and parts—		
Number of establishments.....	25	28
Value.....	\$1,903,925	\$2,639,744
Custom work and repairing, receipts.....	\$859,527	\$791,341
All other products, value.....	\$4,981,718	\$4,631,974



TABLE 5.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Num-ber of estab-lish-ments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Pro-pri-ors and firm mem-bers	Salari-ed officers and em-ployees	Wage earners (average number)	
THE GROUP AS A WHOLE						
United States.....	128	28,487	50	12,596	25,841	25,287
Connecticut.....	15	7,958	4	402	7,552	6,406
Illinois.....	18	10,257	3	822	9,432	8,809
New Jersey.....	9	1,177	3	189	985	2,189
Ohio.....	9	970	3	117	850	790
All other States <sup>4</sup> .....	77	8,125	37	1,066	7,022	7,093
CLOCKS, TIME-RECORDING DEVICES, AND CLOCK MOVEMENTS,						
United States.....	45	9,106	9	1,152	7,945	8,614
Connecticut.....	8	3,333	1	268	3,064	2,501
Illinois.....	9	2,971	1	388	2,582	3,365
Massachusetts.....	6	490	1	141	349	236
New York.....	8	1,801	1	239	1,561	1,974
Ohio.....	5	346	1	79	266	410
All other States <sup>5</sup> .....	9	165	5	37	123	128
WATCHES AND WATCH MOVEMENTS						
United States <sup>6</sup> .....	13	14,727	3	809	13,915	12,348
WATCHCASES						
United States.....	45	4,047	22	545	3,480	4,106
New York.....	30	663	16	126	521	336
All other States <sup>7</sup> .....	15	3,384	6	419	2,959	3,770
WATCH AND CLOCK MATERIALS AND PARTS, EXCEPT WATCHCASES						
United States.....	25	607	16	90	501	219
Illinois.....	4	192	2	28	162	14
Massachusetts.....	5	208	5	30	173	60
New Jersey.....	3	43	2	8	33	73
New York.....	8	64	4	14	46	20
All other States <sup>8</sup> .....	5	100	3	10	87	52

See footnotes at end of table

TABLE 5.—GENERAL STATISTICS, BY STATES: 1925—Continued

[See note at head of this table]

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>1</sup>
<b>THE GROUP AS A WHOLE</b>						
United States.....	\$5,452,881	\$30,736,750	\$562,085	\$21,524,186	\$81,789,729	\$60,265,543
Connecticut.....	1,191,803	8,229,379	5,868	5,363,670	18,918,780	13,555,110
Illinois.....	1,653,900	11,302,388	873,647	6,791,229	29,708,016	22,916,787
New Jersey.....	375,669	1,197,088	28,555	1,188,520	3,508,576	2,320,056
Ohio.....	182,081	894,981	1,549	650,595	3,015,785	2,356,190
All other States <sup>2</sup> .....	2,049,428	9,112,914	152,466	7,521,172	26,638,572	19,117,400
<b>CLOCKS, TIME-RECORDING DEVICES, AND CLOCK MOVEMENTS</b>						
United States.....	2,719,178	9,237,716	369,849	8,920,104	29,379,164	20,459,060
Connecticut.....	791,565	3,575,050	1,635	2,914,280	9,333,277	6,418,997
Illinois.....	919,956	2,766,294	360,256	3,694,460	12,034,372	8,339,912
Massachusetts.....	294,020	413,402	445	422,805	1,509,882	1,087,077
New York.....	494,258	1,975,216	4,503	1,408,773	4,743,534	3,334,761
Ohio.....	131,030	334,411	277,884	277,884	1,092,048	814,164
All other States <sup>2</sup> .....	88,349	173,343	3,010	201,902	666,051	464,149
<b>WATCHES AND WATCH MOVEMENTS</b>						
United States <sup>3</sup> .....	1,494,216	16,556,685	3,163	6,178,017	36,254,110	30,076,093
<b>WATCHCASES</b>						
United States.....	1,064,464	4,462,587	181,442	6,049,905	14,793,211	8,743,306
New York.....	319,451	948,439	131,646	2,101,567	4,255,039	2,153,472
All other States <sup>7</sup> .....	745,013	3,514,148	49,796	3,948,338	10,538,172	6,589,834
<b>WATCH AND CLOCK MATERIALS AND PARTS, EXCEPT WATCHCASES</b>						
United States.....	175,023	479,762	7,631	376,160	1,363,244	987,084
Illinois.....	31,394	98,897	---	135,616	360,797	225,181
Massachusetts.....	46,890	188,313	2,747	101,181	410,540	309,359
New Jersey.....	23,985	32,195	367	23,805	115,665	92,360
New York.....	35,394	56,491	4,134	48,235	216,311	168,076
All other States <sup>8</sup> .....	37,360	103,866	383	67,823	259,931	192,108

<sup>1</sup> Not including 31 salaried officers and employees of central administrative offices, with salaries aggregating \$78,744. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals of 2,627 salaried officers and employees and \$5,531,625. (See "Central-administrative-office employees," p. 1193.)

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> See Table 4.

<sup>4</sup> California, 1 establishment; Indiana, 1; Kentucky, 1; Maryland, 1; Michigan, 3; Minnesota, 1; Massachusetts, 13 (see footnote 6); New York, 47 (see footnote 6); Pennsylvania, 6; Rhode Island, 2; Wisconsin, 1.

<sup>5</sup> California, 1 establishment; Maryland, 1; Michigan, 2; New Jersey, 2; Pennsylvania, 2; Wisconsin, 1.

<sup>6</sup> Connecticut, 3 establishments; Illinois, 2; Indiana, 1; Massachusetts, 2; New Jersey, 1; New York, 1; Ohio, 1; Pennsylvania, 2.

<sup>7</sup> Connecticut, 1 establishment; Illinois, 3; Kentucky, 1; Michigan, 1; Minnesota, 1; New Jersey, 3; Ohio, 3; Rhode Island, 2.

<sup>8</sup> Connecticut, 3 establishments; Pennsylvania, 2.

# MANUFACTURES OF NONFERROUS METALS AND ALLOYS

## (EXCEPT ALUMINUM MANUFACTURES AND PRECIOUS METALS)

[Babbitt metal, white metal, type metal, and solder; lead: bar, pipe, and sheet; brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper, not specifically classified; smelting and refining, metals other than gold, silver, or platinum, not from the ore. A preliminary report for these industries was issued under date of March 16, 1927]

A close relationship exists among these four industries due to the fact that the same general classes of products are manufactured to a considerable extent by establishments classified in two or more of them. For this reason data for these industries are presented both separately and in combination in the statistical tables herewith.

**Description of the industries.**—These industries as a group embrace those establishments which are engaged primarily in the rolling of nonferrous metals (except precious metals and aluminum) into plates, sheets, rods, bars, tubing, and pipe; the manufacture of alloys, castings, bearings, bushings, and other products from these metals; and the recovery, by smelting and refining, of nonferrous metals and alloys (except precious metals) from scrap. These industries do not include the smelting and refining of copper, lead, zinc, and other nonferrous metals from the ore.

The "Babbitt metal, white metal, type metal, and solder" industry embraces establishments engaged primarily in the manufacture of these alloys from virgin metal or from scrap.

The principal products of the "Lead: Bar, pipe, and sheet" industry are block, bar, and sheet lead, lead pipe, and lead traps and bends.

The establishments assigned to the "Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper" industry are engaged primarily in the manufacture of brass, bronze, and other nonferrous alloys, and the rolling of these alloys and of copper into plates, sheets, rods, bars, tubing, and pipe; and the manufacture of castings, bearings, and other finished products from these alloys and from copper. It does not include the smelting and refining of copper, nor the manufacture of such finished products as electric fixtures, hardware, plumbers' supplies, etc., by establishments engaged primarily in the production of such commodities. (Separate industry classifications—"Smelting and refining, copper," "Gas and electric fixtures, not including lamps and reflectors," "Hardware, not elsewhere classified," and "Plumbers' supplies, not including pipe or marble, slate, and porcelain sanitary ware"—are maintained for copper smelters and refineries and for manufacturers of the products specified.) The values of such commodities made as secondary products by establishments in the "Brass, bronze, and copper" industry, are shown in Table 7.

The "Smelting and refining, metals other than gold, silver, or platinum, not from the ore" industry embraces establishments engaged primarily in the recovery or the smelting and refining of nonferrous metals (except gold, silver, and platinum) from scrap and dross. The principal products are copper, lead, zinc, nickel, aluminum, and alloys thereof.

**Detailed statistics of products (Tables 4 to 7, inclusive).**—In making use of the data presented in these tables, it should be remembered that the production of copper, lead, zinc, and other nonferrous metals from the ore is not included in any instance. Table 4 presents detailed statistics of the specified products of the four industries composing the "Nonferrous metals and alloys" group, both those manufactured within these industries and those made as secondary products of other industries. The production of bare wire (\$51,005,533), as shown in this table, represents only that manufactured by establishments engaged primarily in the manufacture of other classes of products made of nonferrous metals and alloys. Establishments whose chief products are wire are classified in the "Wire, drawn from purchased bars or rods" industry. The production of wire by establishments classified in the nonferrous metals and alloys industries represents less than one-half of the total output of bare wire made from nonferrous metals. (See footnote 1, Table 4, p. 952.)

The statistics as presented in Table 5 refer to products which are normally classified in other industries (such as "Electrical machinery, apparatus, and supplies," "Hardware, not elsewhere classified," "Screw-machine products," etc.), but which are also manufactured to a considerable extent as secondary products by establishments in the "Nonferrous metals and alloys" industries. It is impossible to give the total output of these "secondary products" for all industries, as the reports from establishments classified in other industries do not show separately the proportions of such commodities made of nonferrous metals.

**Comparative statistics for earlier years.**—A special schedule providing for detailed data for the specified products of the four industries composing the "Nonferrous metals and alloys" group, was first used at the census for 1925. For this reason no comparative statistics for products, by kind, are available for the group as a whole for earlier census years. A special schedule was used to collect itemized-products data for the "Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper, not specifically classified" industry at the censuses for 1923 and 1921. Comparative statistics for 1925, 1923, and 1921 are, therefore, presented for this industry alone in Table 7.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
<b>THE GROUP AS A WHOLE</b>								
1925*-----	1, 242	68, 079	\$98, 499, 779	\$777, 686	\$470, 578, 606	\$675, 693, 063	\$205, 114, 457	383, 479
1923-----	1, 188	68, 658	94, 246, 819	610, 802	410, 656, 959	608, 036, 949	197, 379, 990	323, 985
1921-----	1, 098	43, 284	50, 777, 427	370, 238	171, 027, 620	266, 782, 440	95, 754, 820	( <sup>3</sup> )
1919-----	1, 323	80, 442	101, 174, 327	459, 616	407, 977, 849	608, 750, 142	200, 772, 233	284, 851
1914-----	1, 212	44, 511	28, 076, 454	148, 748	168, 438, 081	228, 712, 066	60, 273, 985	137, 535
Per cent of increase or decrease (—):								
1923-1925-----	4.5	-0.8	4.5	27.3	14.6	11.1	3.9	18.4
1921-1923-----	8.2	58.6	85.6	65.0	140.1	127.9	106.1	-----
1921-1925-----	13.1	57.3	94.0	110.1	175.1	153.3	114.2	-----
1914-1925-----	2.5	52.9	250.8	422.8	179.4	195.4	240.3	178.8

See footnotes at end of table

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 to 1925—Continued

[See note at head of this table]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
<b>BRASS, BRONZE, AND OTHER NONFERROUS ALLOYS, AND MANUFACTURES OF THESE ALLOYS AND OF COPPER, NOT SPECIFICALLY CLASSIFIED</b>								
1925*	1,044	62,942	\$90,613,352	\$777,686	\$337,640,999	\$519,725,195	\$182,084,196	361,242
1923	1,035	64,713	88,839,005	579,044	331,756,688	511,470,131	179,713,443	305,839
1921	911	39,830	46,260,308	318,336	130,627,160	214,903,735	84,276,575	( <sup>3</sup> )
1919	1,092	75,051	94,132,118	419,868	304,823,580	482,312,790	177,489,210	4265,373
1914	992	40,306	25,084,281	111,021	115,486,768	162,199,019	46,712,251	421,974
Per cent of increase or decrease (—):								
1923-1925	0.9	-2.7	2.0	34.3	1.8	1.6	1.3	18.1
1921-1923	13.6	62.5	92.0	81.9	-154.0	138.0	113.2	-----
1921-1925	14.6	58.0	95.9	144.3	158.5	141.8	116.1	-----
1914-1925	5.2	56.2	261.2	600.5	192.4	220.4	289.8	196.2
<b>SMELTING AND REFINING, METALS OTHER THAN GOLD, SILVER, OR PLATINUM, NOT FROM THE ORE</b>								
1925	102	2,944	\$4,679,537	-----	\$69,262,594	\$82,137,523	\$12,874,929	14,240
1923	41	1,587	2,223,917	\$21,432	28,049,188	35,785,501	6,736,313	9,654
1921	60	1,200	1,528,236	20,792	10,031,481	15,150,055	5,118,574	( <sup>3</sup> )
1919	81	2,167	3,093,140	1,132	40,675,880	50,246,088	9,570,208	7,921
1914	84	2,585	1,884,325	11,247	31,250,707	39,902,114	8,651,407	10,071
Per cent of increase or decrease (—):								
1923-1925	( <sup>3</sup> )	85.5	110.4	-----	138.4	129.5	91.1	47.5
1921-1923	( <sup>3</sup> )	32.3	45.5	-20.0	189.6	136.2	81.6	-----
1921-1925	( <sup>3</sup> )	145.3	206.2	-----	590.5	442.2	151.5	-----
1914-1925	( <sup>3</sup> )	13.9	148.3	-----	121.6	105.8	48.8	41.4
<b>BABBITT METAL, WHITE METAL, TYPE METAL, AND SOLDER</b>								
1925	67	1,465	\$2,220,977	-----	\$44,081,151	\$50,650,498	\$6,569,347	3,907
1923	83	1,497	1,968,523	\$9,958	33,963,883	41,486,662	7,522,779	4,004
1921	98	1,372	1,880,036	16,882	22,355,006	26,255,075	3,900,069	( <sup>3</sup> )
1919	118	2,372	2,882,128	2,940	48,844,269	59,016,983	10,172,714	6,020
1914	109	1,035	701,234	1,927	15,652,180	19,179,976	3,527,796	2,881
Per cent of increase or decrease (—):								
1923-1925	( <sup>3</sup> )	-2.1	12.8	-----	29.8	22.1	-12.7	-2.4
1921-1923	( <sup>3</sup> )	9.1	4.7	-41.0	51.9	58.0	92.9	-----
1921-1925	( <sup>3</sup> )	6.8	18.1	-----	97.2	92.9	68.4	-----
1914-1925	-38.5	41.5	216.7	-----	181.6	164.1	86.2	35.6
<b>LEAD: BAR, PIPE, AND SHEET</b>								
1925	29	728	\$985,913	-----	\$19,593,862	\$23,179,847	\$3,585,985	4,090
1923	29	861	1,215,374	\$368	15,887,200	19,294,655	3,407,455	4,488
1921	29	882	1,108,852	8,228	8,013,978	10,473,575	2,459,602	( <sup>3</sup> )
1919	32	852	1,066,941	35,676	13,684,120	17,174,281	3,540,161	5,587
1914	27	585	406,614	24,553	6,048,426	7,430,957	1,382,531	2,609
Per cent of increase or decrease (—):								
1923-1925	( <sup>3</sup> )	-15.4	-18.9	-----	23.3	20.1	5.2	-8.9
1921-1923	( <sup>3</sup> )	-2.4	9.6	-95.5	98.2	84.2	-38.5	-----
1921-1925	( <sup>3</sup> )	-17.5	-11.1	-----	144.5	121.3	45.8	-----
1914-1925	( <sup>3</sup> )	24.4	142.5	-----	223.9	211.9	159.4	56.8

<sup>1</sup> Including also cost of fuel, electric power, and machinery supplies.<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)<sup>3</sup> Not called for on schedule.<sup>4</sup> These figures differ slightly from the corresponding ones published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3, p. 950.)<sup>5</sup> Not computed where base is less than 100.<sup>6</sup> Includes data for the manufacture of bells, formerly a separate industry. No corresponding data for earlier years. See p. 931.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 8]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY											
		January	February	March	April	May	June	July	August	September	October	November	December
THE GROUP AS A WHOLE													
United States:													
1925 1	68,079	66,412	67,956	67,906	66,431	66,505	66,980	68,966	67,491	68,048	69,869	71,291	71,684
1923 1	68,688	67,476	69,794	71,676	72,840	72,944	72,157	70,929	68,060	65,606	64,147	64,190	64,068
1921 1	43,284	45,906	43,927	44,229	43,131	43,075	41,920	40,568	42,034	42,168	43,475	44,981	44,177
1919 1	80,442	87,262	80,887	75,331	73,608	73,475	72,608	75,124	80,591	83,362	86,346	86,263	88,153
Alabama	59	52	53	55	55	50	57	64	61	60	68	69	67
Georgia	34	35	33	36	35	36	34	32	31	33	32	36	36
Kentucky	150	143	147	146	151	151	155	154	152	148	154	149	154
Louisiana	20	21	21	21	22	21	20	20	21	20	19	19	20
Massachusetts	2,300	2,260	2,292	2,278	2,198	2,264	2,266	2,264	2,322	2,310	2,371	2,388	2,388
Michigan	8,273	7,831	8,034	8,102	8,087	8,219	8,406	8,421	8,228	8,080	8,801	8,703	8,771
Minnesota	269	267	268	273	269	266	262	267	272	278	269	266	272
New Hampshire	100	104	101	100	98	99	99	99	99	99	99	101	105
New York	11,763	11,283	11,770	11,738	11,430	11,388	11,484	11,087	11,728	11,753	12,088	12,344	12,461
Pennsylvania	4,650	4,622	4,639	4,575	4,505	4,528	4,559	4,642	4,079	4,774	4,693	4,832	4,796
Washington	197	185	180	185	168	167	165	163	161	156	162	170	167
Wisconsin	2,555	2,411	2,459	2,528	2,529	2,488	2,471	2,529	2,604	2,627	2,663	2,669	2,678
BRASS, BRONZE, AND OTHER NONFERROUS ALLOYS, AND MANUFACTURES OF THESE ALLOYS AND OF COPPER, NOT SPECIFICALLY CLASSIFIED													
United States:													
1925 1	62,942	61,462	62,912	62,899	61,387	61,776	61,581	61,800	62,274	62,859	64,651	65,916	66,413
1923 1	64,713	63,810	66,015	67,666	68,906	68,988	68,197	66,984	64,052	61,876	60,107	60,141	60,007
1921 1	39,830	42,383	40,398	40,658	39,604	39,604	38,467	37,023	38,767	38,790	39,948	41,546	40,737
1919 1	75,061	81,783	75,650	70,232	68,467	68,345	67,501	69,524	76,028	78,048	80,999	82,392	82,263
Alabama	69	52	53	56	55	50	57	64	61	60	68	69	67
California	842	789	849	903	883	884	839	814	813	803	833	848	841
Colorado	77	90	87	86	73	66	76	86	72	86	80	76	69
Connecticut	20,415	20,892	21,123	20,622	19,711	19,562	19,573	19,463	20,033	20,231	20,806	21,364	21,552
Delaware	21	18	20	20	19	20	20	20	22	23	23	22	23

See footnote at end of table

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925—Continued

[See note at head of this table]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY											
		January	February	March	April	May	June	July	August	September	October	November	December
BRASS, BRONZE, AND OTHER NONFERROUS ALLOYS, AND MANUFACTURES OF THESE ALLOYS AND OF COPPER, NOT SPECIFICALLY CLASSIFIED—continued													
Illinois.....	3,583	3,414	3,564	3,559	3,556	3,498	3,501	3,551	3,476	3,641	3,750	3,709	3,781
Indiana.....	738	778	755	750	786	734	676	699	695	703	742	738	780
Iowa.....	16	18	17	18	16	16	16	17	19	15	15	15	14
Kentucky.....	150	143	147	146	151	151	155	154	152	148	154	149	154
Louisiana.....	20	21	21	22	22	21	20	20	21	20	10	19	20
Maryland.....	839	772	870	899	850	831	830	803	801	837	848	859	862
Massachusetts.....	2,132	2,144	2,176	2,161	2,085	2,146	2,149	2,149	2,205	2,194	2,266	2,266	2,257
Michigan.....	8,238	7,833	8,025	8,092	8,077	8,208	8,395	8,410	8,218	8,070	8,360	8,070	8,739
Minnesota.....	246	238	247	248	248	243	243	245	244	248	242	242	247
Missouri.....	705	685	701	726	720	716	678	680	679	698	706	720	746
New Hampshire.....	100	104	101	100	98	99	99	99	99	99	98	101	105
New Jersey.....	2,074	1,826	1,832	1,955	1,937	2,000	2,032	2,067	2,144	2,145	2,301	2,357	2,257
New York.....	10,861	10,456	10,891	10,878	10,889	10,472	10,560	10,741	10,798	10,884	11,147	11,397	11,517
Ohio.....	3,751	3,427	3,508	3,718	3,718	3,718	3,904	3,943	3,744	3,777	3,887	3,819	3,836
Oregon.....	54	52	50	47	48	48	49	54	57	59	58	59	62
Pennsylvania.....	3,734	3,700	3,769	3,668	3,628	3,634	3,664	3,737	3,766	3,803	3,771	3,896	3,831
Rhode Island.....	105	106	105	106	102	101	103	106	107	104	104	110	107
Texas.....	166	147	147	175	177	166	157	158	163	174	178	176	174
Washington.....	139	138	152	160	142	137	133	135	131	129	134	143	131
Wisconsin.....	2,533	2,389	2,437	2,506	2,507	2,466	2,449	2,507	2,552	2,605	2,641	2,637	2,686

SMELTING AND REFINING, METALS OTHER THAN GOLD, SILVER, OR PLATINUM, NOT FROM THE ORE	PERCENT MAXIMUM EMPLOYMENT INDICATED BY BOLD-FACED FIGURES AND THAT OF MINIMUM EMPLOYMENT BY <i>italic</i> FIGURES. PER CENT WHICH MINIMUM FORMS OF MAXIMUM FOR "THE GROUP AS A WHOLE": 1925, 92.6; 1923, 87.5; 1921, 87.9; 1919, 82.3.									
	1925	1923	1921	1919	1925	1923	1921	1919	1925	1923
United States:										
California.....	2,944	2,889	2,001	2,902	2,889	2,873	2,844	2,913	3,065	3,193
Illinois.....	1,587	1,536	1,439	1,613	1,603	1,608	1,604	1,572	1,655	1,644
Missouri.....	1,287	1,287	1,304	1,312	1,212	1,198	1,198	1,171	1,171	1,189
Missouri.....	2,167	2,284	2,186	2,119	2,073	2,070	2,046	2,106	2,226	2,245
California.....	294	242	231	254	246	242	230	215	241	247
Illinois.....	683	644	609	668	653	642	624	650	703	773
Missouri.....	136	136	136	136	136	136	136	136	136	136
Missouri.....	136	136	136	136	136	136	136	136	136	136
New Jersey.....	108	173	175	175	176	158	160	173	163	164
New York.....	314	301	307	302	306	300	321	323	324	308
Ohio.....	179	169	145	147	183	194	165	180	201	187
Pennsylvania.....	791	802	810	790	753	768	766	779	793	811
BABBITT METAL, WHITE METAL, TYPE METAL, AND SOLDER										
United States:										
California.....	1,465	1,363	1,452	1,440	1,453	1,523	1,488	1,500	1,416	1,513
Illinois.....	1,497	1,460	1,469	1,524	1,480	1,479	1,508	1,520	1,506	1,544
Missouri.....	1,372	1,423	1,381	1,420	1,417	1,389	1,370	1,291	1,460	1,387
Missouri.....	2,372	2,363	2,279	2,241	2,310	2,266	2,308	2,576	2,215	2,705
California.....	48	48	48	48	49	47	47	49	47	47
Illinois.....	344	348	345	349	359	361	354	357	302	346
Missouri.....	75	69	90	86	100	107	70	62	61	62
New Jersey.....	256	219	247	246	252	245	256	263	262	271
New York.....	475	428	458	445	430	499	494	500	471	523
Ohio.....	64	66	68	71	68	59	60	61	63	63
Pennsylvania.....	48	47	50	49	51	49	48	47	49	47
LEAD: BAR, PIPE, AND SHEET										
United States:										
California.....	728	693	691	695	702	733	707	753	737	733
Illinois.....	861	870	871	873	891	864	864	864	879	870
Missouri.....	832	812	812	839	839	884	884	884	896	869
Missouri.....	832	832	762	759	763	764	883	853	905	931
California.....	113	108	114	106	102	108	119	123	116	114
New York.....	77	73	70	68	70	77	81	79	80	78
Pennsylvania.....										

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum for "The group as a whole": 1925, 92.6; 1923, 87.5; 1921, 87.9; 1919, 82.3.



TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num-ber	Capac-ity	Num-ber	Capac-ity	Num-ber	Capac-ity
<b>THE GROUP AS A WHOLE</b>						
Prime movers, total.....	16, 229	Horse-power 383, 479	12, 682	Horse-power 323, 985	10, 112	Horse-power 284, 851
Steam engines.....	164	46, 793	205	99, 239	255	69, 999
Steam turbines.....	41	56, 230			39	55, 135
Internal-combustion engines.....	61	12, 410	80	2, 128	122	4, 200
Water wheels and turbines.....	22	1, 445	23	3, 362	21	2, 320
Electric motors driven by purchased current.....	15, 941	266, 601	12, 384	219, 256	9, 675	153, 197
Electric motors, total.....	20, 562	349, 341	17, 305	313, 903	12, 507	200, 482
Driven by purchased current.....	15, 941	266, 601	12, 384	219, 256	9, 675	153, 197
Driven by current generated in establishment reporting.....	4, 621	82, 740	4, 921	94, 647	2, 832	47, 285
Electric generators.....	119	Kilo-watts 63, 475	(?)	Kilo-watts (?)	(?)	Kilo-watts (?)
<b>BRASS, BRONZE, AND OTHER NONFERROUS ALLOYS, AND MANUFACTURES OF THESE ALLOYS AND OF COPPER, NOT SPECIFICALLY CLASSIFIED</b>						
Prime movers, total.....	14, 867	Horse-power 361, 242	11, 849	Horse-power 305, 839	9, 117	Horse-power 265, 373
Steam engines.....	128	40, 590	174	91, 633	195	61, 862
Steam turbines.....	40	55, 730			38	54, 655
Internal-combustion engines.....	52	11, 735	64	1, 539	104	3, 540
Water wheels and turbines.....	19	1, 433	23	3, 362	21	2, 320
Electric motors driven by purchased current.....	14, 628	271, 754	11, 588	209, 305	8, 759	142, 996
Electric motors, total.....	18, 942	331, 925	16, 092	299, 122	11, 227	183, 594
Driven by purchased current.....	14, 628	251, 754	11, 588	209, 305	8, 759	142, 996
Driven by current generated in establishment reporting.....	4, 314	80, 171	4, 504	89, 817	2, 468	40, 598
Electric generators.....	99	Kilo-watts 60, 119	(?)	Kilo-watts (?)	(?)	Kilo-watts (?)
<b>SMELTING AND REFINING, METALS OTHER THAN GOLD, SILVER, OR PLATINUM, NOT FROM THE ORE</b>						
Prime movers, total.....	776	Horse-power 14, 240	389	Horse-power 9, 654	528	Horse-power 7, 921
Steam engines.....	15	3, 125	11	3, 510	22	2, 110
Steam turbines.....	1	500			1	480
Internal-combustion engines.....	7	596	14	568	11	435
Water wheels and turbines.....	3	12	364	5, 576	494	4, 896
Electric motors driven by purchased current.....	750	10, 007				
Electric motors, total.....	824	10, 469	497	7, 016	505	6, 847
Driven by purchased current.....	750	10, 007	364	5, 576	494	4, 896
Driven by current generated in establishment reporting.....	74	462	133	1, 440	11	1, 951
Electric generators.....	12	Kilo-watts 1, 936	(?)	Kilo-watts (?)	(?)	Kilo-watts (?)
<b>BABBIT METAL, WHITE METAL, TYPE METAL, AND SOLDER</b>						
Prime movers, total.....	405	Horse-power 3, 907	348	Horse-power 4, 004	361	Horse-power 6, 020
Steam engines.....	7	1, 350	6	1, 178	15	2, 937
Steam turbines.....	1	60	1	2	6	160
Internal-combustion engines.....	1	60	1	2	6	160
Water wheels and turbines.....	397	2, 497	341	2, 824	340	2, 923
Electric motors driven by purchased current.....	397	2, 497	341	2, 824	340	2, 923

See footnotes at end of table

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919—Con.

[See note at head of this table]

TYPE	1925		1923		1919	
	Number	Capacity	Number	Capacity	Number	Capacity
BABBIT METAL, WHITE METAL, TYPE METAL, AND SOLDER—continued						
Electric motors, total.....	578	Horse-power 3,934	446	Horse-power 3,841	559	Horse-power 5,675
Driven by purchased current.....	397	2,497	341	2,824	340	2,923
Driven by current generated in establishment reporting.....	181	1,437 Kilo-watts	105	1,017 Kilo-watts	219	2,752 Kilo-watts
Electric generators.....	3	775	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
LEAD: BAR, PIPE, AND SHEET						
Prime movers, total.....	181	Horse-power 4,090	106	Horse-power 4,488	106	Horse-power 5,537
Steam engines.....	14	1,728	14	2,918	23	3,090
Steam turbines.....						
Internal-combustion engines.....	1	19	1	19	1	65
Water wheels and turbines.....						
Electric motors driven by purchased current.....	166	2,343	91	1,551	82	2,382
Electric motors, total.....	218	3,013	270	3,924	216	4,366
Driven by purchased current.....	166	2,343	91	1,551	82	2,382
Driven by current generated in establishment reporting.....	52	670 Kilo-watts	179	2,373 Kilo-watts	134	1,984 Kilo-watts
Electric generators.....	5	645	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the previous report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE: 1925

[This table gives statistics covering the total production of establishments classified for census purposes in the following-named industries: Babbitt metal, white metal, type metal, and solder; lead—bar, pipe, and sheet; brass, bronze, and other nonferrous alloys and manufactures of these alloys and of copper, not specifically classified; smelting and refining, metals other than gold, silver, or platinum, not from the ore. (See "Description of the industries," p. 944.) No comparable statistics for earlier census years can be compiled from the data available, but comparative figures for 1925, 1923, and 1921, for the "Brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper, not specifically classified" industry alone, are given in Table 7. (See "Comparative statistics for earlier census years," p. 945)]

KIND	Pounds	Value	KIND	Pounds	Value
Total value.....		\$706,923,927	PRODUCTS FOR REMANUFACTURE		
The group as a whole, all products.....	675,693,063		Ingots and pigs.....		\$149,562,683
Manufactures of nonferrous metals and alloys.....	652,911,513		Brass.....	171,712,655	19,940,064
Custom work and repairing.....	1,652,725		Bronze.....	27,173,663	3,646,356
All other products.....	21,128,825		Babbitt and bearing metal.....	97,756,585	21,817,354
Nonferrous metals and alloys, secondary products of other industries.....		31,230,864	Solders, all kinds.....	85,448,515	25,685,262
Manufactures of nonferrous metals and alloys, total, all industries.....	684,142,377		Type metal.....	60,103,061	6,517,359
Products for remanufacture.....	525,405,908		White metal (other than bearing metal).....	127,276,358	14,128,076
Finished products.....	158,736,469		Other metals.....		57,828,212
			Plates and sheets.....		124,473,260
			Brass.....	347,819,685	63,633,137
			Bronze.....	31,182,389	7,391,658
			Copper.....	162,315,804	35,231,493
			Lead.....	51,183,053	5,681,165
			White metal (other than bearing metal).....	2,432,081	690,099
			Other metals.....		11,845,708

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE: 1925—Continued

[See note at head of this table]

KIND	Pounds	Value	KIND	Pounds	Value
PRODUCTS FOR REMANUFACTURE—contd.			FINISHED PRODUCTS		
Rods and bars.....		\$68,988,472	Castings, finished.....		\$14,679,922
Brass.....	156,593,023	25,373,678	Brass.....		9,316,652
Bronze.....	4,224,645	1,148,738	Bronze.....		3,527,677
Copper.....	226,948,057	36,485,503	Copper.....		448,212
Lead.....	7,810,185	772,742	Other metals.....		1,387,381
Other metals.....		5,207,811			
Tubing (seamless) and pipe.....		52,217,893	Bearings and bushings.....		21,184,084
Brass.....	96,517,764	23,100,772	Brass.....		2,167,088
Bronze.....	6,054,702	1,646,063	Bronze.....		17,375,504
Copper.....	57,954,140	14,909,482	Other metals.....		1,641,442
Lead.....	105,776,216	11,859,902			
Other metals.....		701,674	Die-castings.....		20,116,492
Tubing, brazed.....		3,767,053	Extruded shapes.....		1,808,667
Brass.....	13,406,768	3,744,060	Brass.....		1,199,573
Other metals.....		22,993	Bronze.....		208,477
Wire, bare <sup>1</sup> .....		51,005,533	Copper.....		193,324
Brass.....	54,593,063	9,921,073	Other metals.....		207,293
Bronze.....	29,671,246	7,478,062			
Copper.....	190,472,519	32,811,665	Ornamental grills, railings, etc.....		4,636,544
Other metals.....		794,733	Brass.....		1,655,136
Castings, rough.....		75,391,014	Bronze.....		2,725,390
Brass.....		26,925,945	Other metals.....		256,018
Weight reported.....	95,010,400	18,981,248	Bells.....		1,182,690
Weight not reported.....		7,944,697	Miscellaneous nonferrous- metal products normally classified in other industries. (See Table 5).....		95,128,120
Bronze.....	209,151,669	40,101,289			
Copper.....	4,907,055	1,307,329			
White metal (other than bearing metal).....	1,214,308	271,036			
Other metals.....		6,785,415			

<sup>1</sup> Includes only wire drawn by establishments engaged primarily in the manufacture of nonferrous metal products; does not include nonferrous wire drawn by establishments engaged primarily in drawing wire, the latter being treated as part of the "Wire" industry. The total production for sale of nonferrous wire in 1925 was 614,156,947 pounds, valued at \$111,417,565.

TABLE 5.—MISCELLANEOUS NONFERROUS-METAL PRODUCTS NORMALLY CLASSIFIED IN OTHER INDUSTRIES, BY KIND AND VALUE: 1925

[This table does not present the total production of any of the products specified, but merely that portion reported by establishments classified in the four industries composing the "Nonferrous metals and alloys" group. Establishments manufacturing these products as their products of chief value are classified in other industries. (See "Description of the industries," p. 944).]

KIND	Total	Brass	Bronze	Copper	Other metals
Total value.....	\$95,128,120	\$69,442,878	\$4,145,022	\$12,619,088	\$8,921,132
Electrical supplies.....	7,588,792	4,571,473	8,302	2,985,179	23,838
Hardware and fittings for rubber goods and fire hose.....	16,763,776	16,552,308	106,956	39,392	65,120
Lubricating and oiling appliances.....	2,862,783	2,028,454	289,187	465,000	80,142
Plumbers' goods.....	14,178,226	11,477,947	49,574	2,300	2,648,405
Steam-engineering specialties.....	4,173,822	2,562,446	7,693	511,404	1,092,279
Screw-machine products.....	3,107,711	3,066,291	400		41,020
Spun and stamped products.....	4,613,229	3,737,103	5,574	624,830	245,722
Valves.....	9,266,028	6,478,221	2,303,706	12,024	472,077
Wire, insulated.....	3,894,898			3,894,898	
Other nonferrous products.....	28,678,855	18,968,635	1,373,630	4,084,061	4,262,529

TABLE 6.—SPECIFIED PRODUCTS, BY KIND, FOR SELECTED STATES: 1925

[This table presents statistics for all States for which figures can be given without disclosing operations of individual establishments. Some of the States not shown, or shown in combination, however, reported larger values of products than some of those shown separately.]

KIND AND STATE	Pounds	Value	KIND AND STATE	Pounds	Value
<b>Ingot and pigs:</b>			<b>Rods and bars—Contd.</b>		
Brass.....	171,712,655	\$19,940,064	Copper.....	226,948,057	\$36,486,503
California.....	7,355,679	823,342	Connecticut, New Jer-		
Illinois.....	59,629,189	6,650,932	sey, and New York...	104,951,603	17,593,287
New York.....	5,907,468	683,926	Michigan, Montana,		
Pennsylvania.....	44,456,122	5,358,932	and Wisconsin.....	117,388,222	17,992,468
Bronze.....	27,173,663	3,646,356	<b>Tubing (seamless) and</b>		
Illinois.....	13,727,103	1,936,621	pipe:		
Ohio.....	6,198,972	745,230	Brass.....	96,517,764	23,100,772
Pennsylvania.....	3,753,773	430,878	Connecticut.....	49,143,617	11,502,030
<b>Babbitt and bearing</b>			Michigan.....	5,740,078	1,623,413
metal.....	97,756,585	21,817,354	New Jersey.....	6,908,812	1,600,169
California.....	5,108,877	1,482,498	New York.....	13,177,827	3,137,472
Illinois.....	30,088,961	6,913,164	Bronze.....	6,054,702	1,646,063
Michigan.....	6,099,736	2,634,961	Connecticut.....	3,657,426	984,637
Missouri.....	18,387,539	2,579,004	Copper.....	57,954,140	14,909,482
New Jersey.....	9,472,840	2,030,210	Connecticut.....	18,908,094	4,909,822
New York.....	9,504,956	2,506,796	Michigan.....	11,493,987	3,546,432
Ohio.....	2,563,773	505,360	New York.....	13,618,329	3,395,187
Pennsylvania.....	7,025,327	1,647,080	Maryland, New Jer-		
<b>Solders, all kinds.....</b>	85,448,515	25,685,262	sey, and Pennsyl-		
California.....	3,847,869	1,094,963	vania.....	12,115,637	2,602,807
Illinois.....	18,856,484	6,337,982	<b>Lead.....</b>	105,776,216	11,859,902
Maryland, New Jer-			Illinois, Michigan,		
sey, and New York...	43,321,204	12,398,065	Missouri, and Wis-		
Massachusetts.....	1,822,958	580,953	consin.....	35,452,035	4,064,905
Missouri.....	1,745,463	525,451	Maryland, Ohio, and		
Ohio and Pennsyl-			Pennsylvania.....	23,734,573	2,635,707
vania.....	10,199,595	3,045,086	New Jersey and New		
<b>Type metal.....</b>	60,103,061	6,517,359	York.....	28,914,404	3,122,716
California, Oregon, and			<b>Tubing brazed:</b>		
Washington.....	3,152,120	415,120	Brass.....	13,406,768	3,744,060
Illinois.....	14,287,750	1,573,529	Connecticut.....	7,159,848	2,010,141
New Jersey and New			Michigan, New York,		
York.....	19,481,686	2,135,819	and Wisconsin.....	6,246,920	1,733,919
Pennsylvania.....	9,250,200	908,736	<b>Wire (bare):</b>		
<b>White metal (other than</b>			Brass.....	54,593,063	9,921,073
bearing metal).....	127,276,358	14,128,076	Connecticut.....	52,400,100	9,507,573
Illinois.....	72,796,663	8,202,813	Bronze.....	29,671,246	7,478,062
Massachusetts, New			Connecticut.....	27,147,493	6,413,262
Jersey, and New			<b>Castings, rough:</b>		
York.....	45,626,849	5,051,071	Brass.....		26,925,945
Pennsylvania.....	2,400,196	271,493	California.....		1,888,828
<b>Plates and sheets:</b>			Connecticut.....		1,177,967
Brass.....	347,819,685	63,633,137	Illinois.....		2,581,410
Connecticut.....	184,037,646	33,601,002	Indiana.....		1,180,808
Illinois, Michigan, and			Massachusetts.....		468,448
Wisconsin.....	92,716,710	16,945,363	Michigan.....		2,136,126
Bronze.....	31,152,389	7,391,658	Minnesota.....		263,043
Connecticut.....	10,857,260	2,643,698	Missouri.....		2,033,431
Illinois, Michigan, and			New Jersey.....		689,734
Wisconsin.....	16,072,756	3,399,522	New York.....		1,724,475
New Jersey, New			Ohio.....		3,814,301
York, and Pennsyl-			Pennsylvania.....		4,944,542
vania.....	4,222,373	1,348,438	Bronze.....	209,151,669	40,101,289
Copper.....	162,315,804	35,231,493	California.....		1,517,324
Connecticut.....	40,373,922	8,574,993	Colorado.....		534,125
Michigan and Wiscon-			Connecticut.....		1,862,937
sin.....	43,032,021	9,015,271	Illinois.....		6,247,421
New Jersey, New			Indiana.....		78,294
York, and Pennsyl-			Massachusetts.....		1,905,047
vania.....	59,933,141	13,517,413	Michigan.....		794,728
<b>Rods and bars:</b>			Missouri.....		3,762,495
Brass.....	156,593,023	25,373,678	New Jersey.....		3,703,494
Connecticut.....	83,768,746	14,133,416	New York.....		5,542,033
Illinois, Michigan, and			Ohio.....		2,790,720
Wisconsin.....	61,725,276	9,401,346	Pennsylvania.....		7,170,223
Bronze.....	4,224,645	1,148,738	Texas.....		925,820
Connecticut.....	1,813,898	458,451	Wisconsin.....		1,309,691

TABLE 6.—SPECIFIED PRODUCTS, BY KIND, FOR SELECTED STATES: 1925—Con.

[See note at head of this table]

KIND AND STATE	Pounds	Value	KIND AND STATE	Pounds	Value
Castings, finished:			Bearings and bushings—		
Brass.....		\$9,316,652	Continued.		
California.....		226,125	Bronze.....		\$17,375,504
Colorado.....		103,526	Indiana.....		453,814
Connecticut.....		161,606	Michigan.....		6,310,844
Illinois.....		1,073,974	Ohio.....		4,818,774
Indiana.....		361,953	Pennsylvania.....		3,802,863
Massachusetts.....		137,887			
Michigan.....		3,950,036	Die-castings.....		20,116,492
Missouri.....		126,483	Illinois.....		4,530,657
New Jersey.....		126,066	Indiana and Ohio.....		4,286,726
New York.....		1,476,875	Michigan and Wisconsin.....		1,300,579
Ohio.....		451,726	New Jersey and Pennsylvania.....		3,395,477
Pennsylvania.....		490,684	New York.....		6,034,078
Rhode Island.....		140,680			
Washington.....		155,261	Ornamental grills, railings,		
Wisconsin.....		193,702	etc.:		
Bronze.....		3,527,677	Brass.....		1,655,136
Massachusetts.....		120,621	Illinois and Ohio.....		281,091
Michigan.....		879,042	New York.....		1,218,584
New Jersey.....		192,632			
New York.....		339,902	Bronze.....		2,725,390
Ohio.....		519,729	Illinois, Kentucky, and		
Pennsylvania.....		490,165	Ohio.....		702,656
Wisconsin.....		286,802	New York.....		1,779,140
Bearings and bushings:					
Brass.....		2,167,088			
Illinois, Indiana, Michigan, and Missouri.....		1,304,258			

TABLE 7.—BRASS, BRONZE, AND OTHER NONFERROUS ALLOYS, AND MANUFACTURES OF THESE ALLOYS AND OF COPPER, NOT SPECIFICALLY CLASSIFIED—PRODUCTS, BY KIND, QUANTITY, AND VALUE: 1925, 1923, AND 1921

[This table covers only the industry specified in the title. No comparable data for 1923 and 1921 are available for the other three industries included in "The group as a whole"]

PRODUCT	Census year	Brass	Bronze	Copper	Other metals and alloys <sup>1</sup>	Value
Total value, all products...	1925					\$519,725,195
	1923					511,470,131
	1921					214,908,735
Products for remanufacture— Distributed by weight, total...		<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	
	1925	804,218,633	281,378,408	619,376,567	67,899,376	356,840,909
	1923	<sup>2</sup> 873,019,607	<sup>2</sup> 183,052,288	<sup>2</sup> 558,624,078	<sup>2</sup> 112,180,332	<sup>2</sup> 357,732,281
	1921	<sup>2</sup> 390,147,440	<sup>2</sup> 88,089,778	<sup>2</sup> 227,598,967	<sup>2</sup> 62,677,531	<sup>2</sup> 155,796,157
Ingots and bars...	1925	<sup>3</sup> 44,160,463	<sup>3</sup> 5,848,930	<sup>3</sup> 1,834,433	<sup>3</sup> 24,396,655	<sup>3</sup> 14,017,290
	1923	113,828,726	8,295,882	27,962,423	36,025,229	26,461,758
	1921	32,040,384	3,495,275	2,284,515	10,846,361	6,184,566
Plates and sheets...	1925	347,819,685	31,152,389	162,315,804	30,532,181	118,359,122
	1923	337,213,620	22,664,185	135,788,265	36,046,973	113,670,335
	1921	115,261,203	8,784,902	68,534,490	15,736,113	42,867,256
Rods...	1925	156,593,023	4,224,645	202,432,757	266,179	64,265,602
	1923	180,075,161	4,637,125	161,365,451	19,181,518	59,682,732
	1921	39,060,174	2,293,429	40,971,233	184,592	13,224,039
Tubing— Seamless...	1925	92,635,231	6,054,702	57,394,461	3,402,598	39,593,749
	1923	72,999,797	6,048,802	40,372,062	501,149	32,946,514
	1921	37,436,066	1,506,031	18,195,028	526,999	13,849,917
Brazed...	1925	13,406,768	41,780	19,538		3,767,073
	1923	15,162,381	142,091	82,114		4,487,140
	1921	3,077,761	93,142	374,198		1,070,687
Wire bars...	1925	54,593,063	29,419,846	190,472,519	749,166	50,858,062
	1923	55,072,088	15,832,121	185,276,301	799,886	48,483,219
	1921	18,748,700	8,526,123	94,249,187	750,884	20,769,474
Castings, rough...	1925	95,010,400	204,636,116	4,907,055	8,552,697	65,980,031
	1923	<sup>4</sup> 148,667,834	<sup>4</sup> 125,432,082	<sup>4</sup> 7,777,462	<sup>4</sup> 19,625,577	<sup>4</sup> 71,970,574
	1921	<sup>4</sup> 144,523,152	<sup>4</sup> 63,390,876	<sup>4</sup> 2,990,296	<sup>4</sup> 34,632,562	<sup>4</sup> 57,880,218
Finished products—Distributed by value, total.		<i>Value</i>	<i>Value</i>	<i>Value</i>	<i>Value</i>	
	1925	<sup>5</sup> \$80,287,803	<sup>5</sup> \$24,831,104	<sup>5</sup> \$13,346,335	<sup>5</sup> \$23,557,419	<sup>5</sup> \$142,022,661
	1923	92,617,468	13,231,086	18,087,669	7,784,077	131,720,290
	1921	33,092,885	3,460,063	3,909,315	1,028,516	41,490,779
Amount received for custom work and repairs.	1925					1,577,733
	1923					1,720,323
	1921					1,402,921
All other products...	1925					19,288,892
	1923					20,297,237
	1921					16,213,878

<sup>1</sup> Chiefly aluminum, white metal, Monel metal, zinc, German silver, etc.

<sup>2</sup> Includes data for finished castings for 1923 and 1921 but not for 1925.

<sup>3</sup> Not strictly comparable because of changes in classification.

<sup>4</sup> Reported as castings and machinery fittings.

<sup>5</sup> Includes data for finished castings for 1925 but not for other years.

TABLE 8.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

GROUP AND STATE	Num-ber of estab-lish-ments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufac-ture <sup>1</sup>
		Total	Pro-duc-tors and firm mem-bers	Sal-a-ried officers and em-ployees	Wage earners (average num-ber)							
THE GROUP AS A WHOLE												
United States.....	1, 242	78, 642	631	1 9, 932	68, 079	383, 479	\$27, 321, 163	\$98, 499, 779	\$777, 686	\$470, 578, 606	\$675, 693, 063	\$205, 114, 457
Alabama.....	4	71	2	10	59	294	25, 261	62, 814	---	295, 319	435, 063	139, 744
Georgia.....	4	56	12	10	34	272	25, 516	30, 307	---	977, 727	1, 162, 568	184, 841
Kentucky.....	4	181	8	23	160	356	76, 086	216, 888	---	451, 030	879, 076	428, 046
Louisiana.....	4	29	2	7	20	63	15, 013	33, 515	---	56, 744	125, 594	68, 850
Massachusetts.....	90	2, 648	70	278	2, 300	14, 710	772, 183	3, 010, 209	3, 557	10, 674, 597	16, 885, 505	6, 210, 908
Michigan.....	82	9, 236	29	994	8, 273	41, 374	2, 774, 863	12, 925, 739	103, 504	43, 336, 492	66, 848, 825	23, 512, 333
Minnesota.....	16	326	9	48	269	5, 219	119, 909	362, 243	693	1, 453, 542	2, 264, 017	90, 900, 475
New Hampshire.....	6	110	2	8	100	153	28, 178	117, 373	---	292, 705	501, 968	209, 293
New York.....	202	13, 663	117	1, 783	11, 763	51, 925	4, 687, 341	17, 137, 920	228, 275	77, 283, 374	112, 836, 315	35, 552, 941
Pennsylvania.....	131	5, 476	54	772	4, 650	27, 119	2, 148, 220	6, 831, 646	52, 869	35, 643, 496	50, 863, 755	15, 220, 259
Washington.....	15	225	12	46	167	554	105, 806	247, 670	26, 818	1, 050, 715	1, 908, 071	15, 557, 566
Wisconsin.....	38	2, 944	12	377	2, 556	21, 196	822, 704	3, 722, 339	9, 685	22, 165, 942	29, 509, 959	7, 344, 017
All other States <sup>4</sup> .....	644	43, 677	302	5, 636	37, 739	220, 244	15, 720, 181	53, 801, 116	352, 285	276, 896, 923	391, 482, 347	114, 585, 424
BRASS, BRONZE, AND OTHER NONFERROUS ALLOYS, AND MANUFACTURES OF THESE ALLOYS AND OF COPPER, NOT SPECIFICALLY CLASSIFIED												
United States.....	1, 044	71, 925	537	8, 446	62, 942	361, 242	22, 947, 353	90, 613, 352	777, 686	337, 640, 999	519, 725, 195	182, 064, 196
Alabama.....	4	71	2	10	59	294	25, 261	62, 814	---	295, 319	435, 063	139, 744
California.....	55	1, 023	46	135	842	1, 675	315, 280	1, 257, 097	22, 816	2, 932, 009	5, 006, 018	2, 674, 009
Colorado.....	9	93	4	12	77	212	22, 354	100, 347	---	507, 258	688, 337	181, 079
Connecticut.....	64	23, 029	20	2, 564	20, 415	138, 744	7, 301, 977	28, 339, 321	29, 702	102, 688, 562	156, 141, 974	53, 453, 412
Delaware.....	4	29	---	8	21	41	22, 836	33, 004	---	110, 494	194, 792	84, 298

Illinois.....	108	4,131	58	490	3,583	12,983	1,494,236	5,425,882	54,871	19,331,122	30,966,902	11,635,795
Indiana.....	25	862	8	106	738	3,150	282,821	987,130	25,722	1,706,005	3,789,952	2,083,947
Kentucky.....	5	23	16	2	16	25	2,226	19,283	126	98,911	153,926	55,015
Louisiana.....	6	181	8	23	160	356	76,036	216,888	451,030	451,030	879,078	428,046
Maryland.....	4	29	2	7	20	63	15,013	33,515	56,744	56,744	125,694	68,850
Massachusetts.....	16	1,001	2	160	839	9,242	330,920	1,010,617	---	6,352,284	8,695,724	2,243,440
Michigan.....	80	2,476	64	230	2,182	14,180	625,350	2,811,054	3,557	7,580,626	13,196,795	5,616,169
Minnesota.....	78	9,211	27	926	8,238	41,988	2,760,464	12,904,369	103,504	42,194,513	65,694,415	23,399,902
Missouri.....	13	281	8	37	246	5,006	86,764	332,536	663	563,944	1,217,123	663,179
New Hampshire.....	9	843	13	125	705	1,699	412,083	974,764	---	6,221,931	8,132,796	1,910,865
New Jersey.....	6	110	2	100	100	153	23,173	117,373	---	292,706	501,968	209,265
New York.....	57	2,454	31	349	2,074	11,119	922,304	2,969,371	18,056	10,441,878	16,426,547	5,983,669
Ohio.....	175	12,473	103	1,509	10,861	50,193	3,986,678	15,783,466	228,275	57,493,871	89,876,401	32,331,230
Oregon.....	107	4,306	36	519	3,751	8,632	1,331,261	5,684,336	149,787	11,393,006	23,500,090	12,137,684
Pennsylvania.....	8	81	39	18	54	284	44,432	78,408	600	14,583,566	302,130	20,283,098
Rhode Island.....	106	4,342	39	569	3,734	22,270	1,541,365	52,869	52,869	19,588,066	20,871,154	383,186
Texas.....	12	135	12	13	105	138	45,707	129,698	---	344,306	727,491	534,921
Vermont.....	12	202	9	27	166	420	58,309	205,438	10,272	1,094,158	1,535,979	566,141
Washington.....	32	176	12	23	139	299	42,610	139,439	26,632	21,438,021	340,162	28,697,204
Wisconsin.....	32	2,904	9	302	2,393	21,093	703,254	3,693,254	5,693	21,438,021	28,697,204	7,062,869
All other States.....	27	1,469	8	177	1,274	17,867	332,663	2,110,753	35,982	24,104,420	31,767,289	---
UNITED STATES.....	102	3,708	56	708	2,944	14,240	2,327,401	4,679,537	---	69,262,594	82,137,523	12,574,929
California.....	8	297	6	67	224	2,511	287,655	348,357	---	4,347,315	5,254,201	906,895
Illinois.....	22	894	14	197	683	6,781	678,116	1,307,925	25,108,861	28,114,947	1,184,947	2,916,985
Massachusetts.....	5	51	2	13	36	131	32,728	81,571	---	1,465,153	1,588,020	92,867
Missouri.....	4	227	1	67	159	429	230,240	200,717	---	7,586,792	8,788,797	1,152,005
New Jersey.....	10	210	6	36	168	2,360	126,840	279,173	---	2,683,382	3,372,743	689,361
New York.....	9	338	4	70	314	432	232,738	451,738	---	6,313,658	7,242,346	928,688
Ohio.....	13	233	1	53	176	625	152,556	279,738	---	5,022,691	5,842,503	819,812
Pennsylvania.....	13	944	13	140	791	4,383	483,726	1,411,238	---	11,868,746	16,041,426	4,172,631
All other States.....	18	464	9	65	390	1,837	171,802	1,589,080	---	4,775,997	5,972,540	1,196,543
BABBITT METAL, WHITE METAL, TYPE METAL, AND SOLDER.....	67	1,993	25	503	1,465	3,907	1,352,139	2,220,977	---	44,081,151	50,650,498	6,563,347
California.....	6	68	2	18	344	113	72,442	78,692	---	830,585	1,157,441	326,856
Illinois.....	7	463	2	117	437	1,607	337,444	483,475	---	11,893,694	13,295,019	1,401,325
Missouri.....	5	5	1	55	131	177	122,311	85,193	---	1,457,583	1,740,523	282,940
New Jersey.....	5	303	1	47	256	473	136,182	436,189	---	10,830,400	12,184,614	1,354,214

See footnotes at end of table



TABLE 8.—GENERAL STATISTICS, BY STATES: 1925—Continued

(See note at head of this table)

GROUP AND STATE	Num-ber of estab-lish-ments	PERSONS ENGAGED IN THE INDUSTRY					Horse-power	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manu-fac-ture <sup>1</sup>
		Pro-pri-eti-ors and firm mem-bers		Sala-ried officers and em-ployees	Wage earners (average number)								
		Total											
BABBITT METAL, WHITE METAL, TYPE METAL, AND SOLDIER.—continued													
New York.....	14	645	8	162	475	895	\$392,664	\$760,349			\$11,111,494	\$12,794,296	\$1,682,802
Ohio.....	7	91	27	64	64	14	67,777	86,477			2,032,185	2,861,830	529,345
Pennsylvania.....	8	83	2	33	48	81	84,335	79,960			1,708,442	2,126,061	367,619
All other States <sup>2</sup> .....	15	209	10	44	155	547	119,294	210,642			4,156,763	4,791,069	634,246
LEAD: BAR, PIPE, AND SHEET													
United States.....	29	1,016	13	275	728	4,090	694,240	985,913			19,593,862	23,179,847	3,685,985
New York.....	4	157	2	42	113	555	84,261	137,367			2,364,351	2,924,572	560,221
Pennsylvania.....	4	107	—	30	77	385	68,794	104,363			2,418,263	2,826,114	406,861
All other States <sup>3</sup> .....	21	752	11	203	538	3,150	541,185	744,153			14,811,258	17,430,161	2,618,903

<sup>1</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)<sup>2</sup> Not including 502 salaried officers and employees of central administrative offices with salaries aggregating \$1,267,683. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals as follows: The industry as a whole, 10,434 salaried officers and employees and \$28,588,846 salaries; brass, bronze, and other nonferrous alloys, and manufactures of these alloys and of copper, not specifically classified, 8,917 salaried officers and employees and \$24,132,274 salaries; smelting and refining, metals other than gold, silver, or platinum, not from the ore, 708 salaried officers and employees and \$2,327,401 salaries; Babbitt metal, white metal, type metal, and solder, 626 salaried officers and employees and \$1,412,883 salaries; and lead: bar, pipe, and sheet, 283 salaried officers and employees and \$716,318 salaries. (See "Central-administrative-office-employees," p. 1193.)<sup>3</sup> See first 6 lines, Table 4, p. 951.<sup>4</sup> California, 70 establishments; Colorado, 11; Connecticut, 68; Delaware, 5; District of Columbia, 2; Florida, 1; Illinois, 138; Indiana, 28; Iowa, 6; Kansas, 4; Maine, 1; Maryland, 18; Missouri, 30; Montana, 1; Nebraska, 4; New Jersey, 73; Ohio, 129; Oklahoma, 3; Oregon, 10; Rhode Island, 13; South Carolina, 1; Tennessee, 3; Texas, 13; Utah, 1; Vermont, 2; Virginia, 3; West Virginia, 6.<sup>5</sup> District of Columbia, 2 establishments; Florida, 1; Georgia, 2; Kansas, 4; Maine, 1; Montana, 1; Nebraska, 2; Oklahoma, 2; Tennessee, 3; Utah, 1; Vermont, 2; Virginia, 1; West Virginia, 5.<sup>6</sup> Connecticut, 4 establishments; Delaware, 1; Georgia, 1; Indiana, 3; Michigan, 1; Nebraska, 1; Oklahoma, 1; Virginia, 1; Washington, 1; Wisconsin, 3.<sup>7</sup> Colorado, 1 establishment; Iowa, 1; Maryland, 1; Massachusetts, 2; Michigan, 2; Minnesota, 2; Oregon, 2; Texas, 1; Virginia, 1; Washington, 1; Wisconsin, 1.<sup>8</sup> California, 1 establishment; Colorado, 1; Georgia, 1; Illinois, 1; Maryland, 1; Massachusetts, 3; Michigan, 1; Minnesota, 1; Missouri, 2; Nebraska, 1; New Jersey, 1; Ohio, 2; Rhode Island, 1; South Carolina, 1; Washington, 1; Wisconsin, 2.

# NEEDLES, PINS, HOOKS AND EYES, AND SNAP FASTENERS

[A preliminary report for this industry was issued under date of February 28, 1927]

**Description of the industry.**—This industry consists in the manufacture of (1) needles of all classes, including sewing-machine needles, knitting-machine needles, and darning, canvas, and bag needles; (2) pins—common or toilet pins, safety pins, and metal hairpins; (3) hooks and eyes; and (4) snap fasteners. Pins made of precious metals are not treated as products of this industry, but are classified as jewelry. Hairpins made of materials other than metal are classified as products of the "Combs and hairpins, not made of metal or rubber," industry.

**Decrease in number of establishments.**—The number of establishments classified in this industry has decreased from census to census since 1919. The decrease from 1919 to 1921 was due in part to the change in the minimum value-of-products limit from \$500 to \$5,000. (See "Limitation of statistics to establishments reporting products valued at \$5,000 or more," p. 5.) In 1925 the industry was represented by 48 establishments, the decrease from 49 in 1923 having been the net result of a gain of 8 establishments and a loss of 9. The loss is accounted for as follows: Out of business, 5; idle, 1; reported commodities other than needles, pins, hooks and eyes, and snap fasteners as principal products and therefore transferred to the appropriate industries, 3.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925.....	48	5,850	\$5,855,670	\$35,625	\$5,925,652	\$18,173,574	\$12,247,922	7,603
1923.....	49	6,834	6,703,079	48,291	7,795,975	22,147,468	14,351,493	10,367
1921.....	68	6,542	5,542,404	181,899	6,162,949	18,896,168	12,733,219	(3)
1919.....	92	9,294	8,809,781	206,216	10,227,199	29,304,985	19,077,796	8,423
1914.....	49	5,339	2,506,611	40,571	3,241,657	7,890,879	4,049,222	4,783
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925.....	(9)	-14.4	-12.6	-26.2	-24.0	-17.9	-14.7	-26.7
1921-1923.....	(9)	4.5	20.9	-73.5	26.5	17.2	12.7	-----
1921-1925.....	(9)	-10.6	5.7	-80.4	-3.9	-3.8	-3.8	-----
1914-1925.....	(9)	9.6	133.6	-12.2	82.8	130.3	163.4	59.0

<sup>1</sup> Including also cost of fuel, electric power, and containers.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> These figures differ slightly from the corresponding ones published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3, p. 960.)

<sup>5</sup> Not computed where base is less than 100.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[One of the States for which no figures are given in this table reported a larger number of wage earners than some of those for which statistics are shown. See headnote, Table 5, p. 952]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	5,850	5,675	5,740	5,785	5,777	5,691	5,680
1923 <sup>1</sup> .....	6,834	7,051	7,123	7,139	7,108	6,990	6,946
1921 <sup>1</sup> .....	6,542	5,653	5,914	5,966	6,144	6,204	6,037
1919 <sup>1</sup> .....	9,294	9,008	8,994	8,949	8,824	8,823	8,925
Connecticut.....	2,371	2,373	2,353	2,308	2,334	2,351	2,371
Illinois.....	172	148	148	177	176	171	157
New Hampshire.....	694	635	648	680	692	709	705
New Jersey.....	728	750	748	741	739	705	707
New York.....	321	295	316	327	330	310	305
Pennsylvania.....	787	711	751	770	764	745	744

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <sup>1</sup> .....	5,748	5,903	5,977	6,042	6,087	6,093
1923 <sup>1</sup> .....	7,044	6,815	6,575	6,439	6,416	6,357
1921 <sup>1</sup> .....	7,328	7,533	7,157	6,938	6,920	6,702
1919 <sup>1</sup> .....	9,314	9,587	9,525	9,692	9,835	10,052
Connecticut.....	2,408	2,420	2,390	2,400	2,369	2,371
Illinois.....	158	177	189	215	185	180
New Hampshire.....	705	700	714	714	701	728
New Jersey.....	721	728	702	718	728	748
New York.....	323	337	334	314	334	323
Pennsylvania.....	739	776	841	833	881	893

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 93.2; 1923, 89; 1921, 74.8; 1919, 87.8.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power
Prime movers, total.....	908	7,603	838	10,367	758	18,423
Steam engines.....	12	2,241	20	4,257	25	3,492
Steam turbines.....	7	1,403			3	633
Internal-combustion engines.....	1	25	11	685	1	4
Water wheels and turbines.....	10	705			14	822
Electric motors driven by purchased current.....	878	3,229	807	5,425	715	3,472
Electric motors, total.....	1,115	5,376	945	6,171	931	5,903
Driven by purchased current.....	878	3,229	807	5,425	715	3,472
Driven by current generated in establishment reporting.....	237	2,147	138	746	216	2,431
Electric generators.....	18	2,105	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1919 TO 1925

CLASS	1925	1923	1921	1919
Total value <sup>1</sup> .....	\$18, 173, 574	\$22, 147, 468	\$18, 896, 163	\$29, 304, 995
Needles, total value.....	\$5, 360, 065	\$5, 096, 116	\$4, 763, 278	\$6, 015, 839
Knitting-machine—				
Latch—				
Thousands.....	102, 407	99, 441	86, 198	121, 184
Value.....	\$3, 216, 831	\$3, 072, 607	\$2, 688, 191	\$3, 845, 431
Spring—				
Thousands.....	113, 875	43, 093	30, 300	42, 722
Value.....	\$379, 202	\$382, 479	\$264, 377	\$340, 896
All other needles, including sewing-machine <sup>2</sup> —				
Thousands.....	80, 443	103, 464	96, 411	100, 154
Value.....	\$1, 264, 032	\$1, 641, 030	\$1, 810, 710	\$1, 829, 512
Pins, total value.....	\$4, 654, 923	\$5, 663, 586	\$5, 655, 729	\$7, 248, 225
Common or toilet, value.....	\$1, 362, 096	\$1, 908, 833	\$1, 973, 730	\$2, 789, 735
Made of steel wire—				
Pounds.....	464, 508	582, 554	784, 041	2, 798, 633
Value.....	\$129, 937	\$190, 471	\$342, 069	\$1, 120, 823
Packs of 3,360.....	946, 345	997, 594	731, 564	1, 342, 119
Value.....	\$236, 719	\$234, 690	\$201, 384	\$400, 379
Made of brass wire—				
Pounds.....	1, 113, 777	1, 263, 734	2, 180, 513	740, 797
Value.....	\$523, 359	\$721, 763	\$1, 079, 491	\$617, 017
Packs of 3,600.....	847, 065	1, 488, 229	549, 403	1, 089, 307
Value.....	\$472, 081	\$761, 909	\$350, 786	\$651, 516
Hairpins, metal <sup>3</sup> —				
Pounds.....	3, 423, 331	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Value.....	\$1, 100, 215	\$1, 306, 007	\$1, 425, 239	\$1, 480, 992
Safety pins—				
Gross.....	7, 833, 307	7, 878, 319	5, 186, 818	8, 427, 719
Value.....	\$2, 192, 612	\$2, 448, 746	\$2, 256, 760	\$2, 977, 498
Hooks and eyes, total:				
Great gross.....	278, 334	261, 146	266, 174	745, 819
Value.....	\$342, 772	\$470, 415	\$594, 418	\$833, 321
Made of steel wire—				
Great gross.....	7, 781	26, 752	70, 305	582, 647
Value.....	\$8, 667	\$40, 215	\$114, 968	\$654, 321
Made of brass or other nonferrous wire—				
Great gross.....	270, 553	234, 394	195, 869	163, 172
Value.....	\$334, 105	\$430, 200	\$479, 450	\$179, 000
Snap fasteners and clasps:				
Great gross.....	424, 597	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Value.....	\$4, 943, 315	\$5, 627, 784	\$4, 098, 187	\$7, 438, 551
All other products, value.....	\$2, 872, 499	\$5, 289, 567	\$3, 784, 556	\$7, 769, 059

<sup>1</sup> In addition, the following were reported as secondary products by establishments engaged primarily in other industries: For 1925—needles, pins, and hooks and eyes, valued at \$1,176,039; snap fasteners and clasps, \$182,899. For 1923—needles, pins, and hooks and eyes, \$1,433,163; snap fasteners and clasps, \$485,591. For 1921—needles, pins, and hooks and eyes, \$2,817,990; snap fasteners and clasps, \$291,044. For 1919—needles, pins, and hooks and eyes, \$1,613,849; snap fasteners and clasps, \$556,654.

<sup>2</sup> Sewing-machine needles not shown separately to avoid disclosing operations of individual establishments.

<sup>3</sup> Manufacturers of nonmetallic hairpins are classified in the "Combs and hairpins, not made from metal or rubber" industry.

<sup>4</sup> No comparable data.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. One of the "All other States," however, reported a larger value of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power.
		Total	Proprietors and firm members	Salaries officers and employees	Wage earners (average number)	
United States.....	48	6,479	16	613	5,850	7,603
Connecticut.....	13	2,588	3	214	2,371	3,711
Illinois.....	4	236	-----	64	172	222
New Hampshire.....	8	735	4	37	694	499
New Jersey.....	5	797	8	61	728	1,157
New York.....	5	354	-----	33	321	436
Pennsylvania.....	4	852	-----	65	787	517
All other States <sup>1</sup> .....	9	917	1	139	777	1,061

  

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>2</sup>
United States.....	\$1,500,834	\$5,855,679	\$35,625	\$5,925,652	\$18,173,574	\$12,247,922
Connecticut.....	516,304	2,429,878	8,851	2,916,525	8,094,799	5,178,274
Illinois.....	149,169	201,932	-----	246,876	682,743	435,867
New Hampshire.....	82,256	664,766	-----	119,141	1,089,038	969,897
New Jersey.....	156,051	687,859	16,239	482,870	1,673,105	1,190,235
New York.....	76,492	269,738	8,000	352,567	834,703	482,136
Pennsylvania.....	169,918	762,855	-----	747,449	2,519,303	1,771,854
All other States <sup>1</sup> .....	350,644	838,651	2,535	1,060,224	3,279,883	2,219,659

<sup>1</sup> Massachusetts, 3 establishments; Michigan, 2; Ohio, 1; Rhode Island, 1; Vermont, 1; Wisconsin, 1.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> See footnote 1, Table 4, p. 961.

## SMELTING AND REFINING

### (NONFERROUS METALS)

**Description of the industries.**—Establishments engaged in the smelting and refining of nonferrous metals are classified for census purposes under four industry designations, as follows: (1) Copper; (2) lead; (3) zinc; and (4) other nonferrous metals—tungsten, nickel, and tin.<sup>1</sup> (No establishments classifiable in the last-named industry were reported at the census for 1925.) The copper smelters and refineries include establishments which smelt or refine copper ore or matte on toll, as well as those smelting ores of their own production. The cost of materials reported for establishments which treat ore or matte for others includes the estimated value of the ore or matte treated, and the value of products reported for such establishments includes the values of the metals produced. Considerable quantities of gold and silver are produced from copper and lead ore through the smelting and refining operations.

**State statistics.**—The ranking of the States for the group as a whole, as determined by the value of products, is as follows:

New Jersey, Montana, Arizona, Utah, Maryland, California, Illinois, New York, Nebraska, Washington, Pennsylvania, Indiana, Texas, Missouri, Oklahoma, Michigan, Idaho, Kansas, West Virginia, Colorado, Nevada, Arkansas, Tennessee, and Virginia.

For the individual industries, the ranking of the States for 1925 is as follows:

Copper: New Jersey, Arizona, Maryland, Montana, New York, Washington, Utah, Texas, Michigan, Nevada, Tennessee, California, and Virginia.

Lead: California, Utah, Nebraska, Illinois, Indiana, Missouri, Montana, Idaho, Colorado, Kansas, and Oklahoma.

Zinc: Pennsylvania, Illinois, Oklahoma, Montana, West Virginia, Kansas, Arkansas, Texas, Colorado, and Indiana.

**Duplication in cost of materials and value of products.**—The total cost of materials and value of products include extensive duplications resulting from the use of the products of certain establishments as materials by others. For example, the blister copper and the lead bullion produced by smelters are used as materials by refineries. Thus the value of the copper and lead in these forms, which represent an intermediate stage in the production of refined copper and lead from the ore, appears twice in the total value of products for the industry; and a corresponding duplication enters into the total cost of materials for the industry. If each establishment performed all the processes of manufacture from the ore to the refined product, neither the value of products nor the cost of materials would include the value of blister copper or lead bullion.

The amount of duplication in the statistics for 1925 may be considered as being approximately the value of blister copper (\$212,585,900), lead bullion (\$80,309,776), and doré (\$23,143,757) reported by smelters operated separately from refineries. (See Table 5.)

**Detailed statistics of products.**—The annual reports of the United States Bureau of Mines show the quantities of the several classes of products of the smelting and refining industry. Because of the extent to which gold and silver contribute to the values of products reported by the copper and lead smelters and refineries, and because of the duplication due to the use of the products of certain establishments as materials by others (see "Duplication in cost of materials and value of products"), the values of products for the several branches of the industry as compiled from the census returns can not be coordinated with the production figures for the several classes of products as compiled by the Bureau of Mines. (See Tables 4 and 5.)

Table 5 shows in detail the values of the products of smelters and refineries for 1925. Comparative figures for prior census years are not available.

<sup>1</sup> Iron smelting is a separate industry ("Iron and steel: Blast furnaces"). The recovery of metals from scrap, waste, etc., is classified under the industry designation "Gold, silver, and platinum, reducing and refining, not from the ore," in the case of precious metals, and under "Smelting and refining, metals other than gold, silver, or platinum, not from the ore," for all others. The crushing and milling of quartz and the separation of gold and silver from the ore in concentrating and separating plants are treated as mining, and not manufacturing operations, and therefore are not included in the smelting and refining industry for census purposes.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
<b>THE GROUP AS A WHOLE</b>								
1925.....	71	32,992	\$47,947,907	\$50,201	\$912,063,567	\$1,067,124,899	\$155,061,332	460,096
1923.....	88	35,146	51,510,128	74,824	830,089,690	952,734,111	122,644,412	446,047
1921.....	85	19,014	25,148,682	480,404	368,331,888	430,031,904	61,700,016	( <sup>3</sup> )
1919.....	111	39,620	55,649,412	472,171	848,755,914	972,093,552	123,337,638	456,582
1914.....	88	34,733	28,983,145	226,228	572,744,382	669,138,943	96,394,561	261,419
Per cent of increase or decrease (—): <sup>4</sup>								
1923-1925.....		-6.1	-6.9	-32.9	9.9	12.0	26.4	3.1
1921-1923.....		84.8	104.8	-84.4	125.4	121.5	98.8	-----
1921-1925.....		73.5	90.7	-89.6	147.6	148.2	151.3	-----
1914-1925.....		-5.0	65.4	-77.8	59.2	59.5	60.9	76.0
<b>COPPER</b>								
1925.....	26	15,588	\$22,641,626	\$34,911	\$573,190,428	\$665,176,767	\$91,986,339	326,509
1923.....	29	16,777	25,459,160	40,698	554,099,924	625,432,965	71,333,041	332,943
1921.....	28	8,293	11,199,279	67,540	205,903,896	234,895,245	28,991,349	( <sup>3</sup> )
1919.....	34	17,345	25,723,371	222,176	584,410,173	651,101,591	66,691,418	321,610
1914.....	37	17,731	16,149,251	168,195	379,157,080	444,021,958	64,864,928	194,980
Per cent of increase or decrease (—): <sup>4</sup>								
1923-1925.....		-7.1	-11.1	-14.2	3.4	6.4	29.0	-1.9
1921-1923.....		102.3	127.3	-39.7	169.1	166.3	146.0	-----
1921-1925.....		88.0	102.2	-48.3	178.4	183.2	217.3	-----
1914-1925.....		-12.1	40.2	-79.2	51.2	49.8	41.8	67.5
<b>LEAD</b>								
1925.....	17	6,115	\$9,001,580	-----	\$254,881,029	\$283,042,542	\$28,161,513	47,219
1923.....	20	6,194	8,767,924	\$27,150	207,314,578	227,735,149	20,420,571	42,377
1921.....	23	4,509	5,957,961	4,950	134,061,121	150,593,779	16,532,658	( <sup>3</sup> )
1919.....	25	6,438	9,179,615	249,995	179,373,646	196,794,519	17,420,873	49,668
1914.....	22	7,385	6,134,274	10,258	154,014,765	171,578,587	17,563,822	29,734
Per cent of increase or decrease (—): <sup>4</sup>								
1923-1925.....		-1.3	2.7	-----	22.9	24.3	37.9	11.4
1921-1923.....		37.4	47.2	448.5	54.6	51.2	23.5	-----
1921-1925.....		35.6	51.1	-----	90.1	88.0	70.3	-----
1914-1925.....		-17.2	46.7	-----	65.5	65.0	60.3	58.8
<b>ZINC</b>								
1925.....	28	11,289	\$16,304,701	\$15,290	\$83,992,110	\$118,905,590	\$34,913,480	86,868
1923.....	35	11,918	16,895,864	6,976	64,134,114	94,183,900	30,049,786	69,583
1921.....	29	5,778	7,243,760	11,302	24,312,208	37,482,675	13,170,467	( <sup>3</sup> )
1919.....	39	13,796	17,783,278	-----	70,014,728	104,122,938	34,108,210	73,604
1914.....	29	9,617	6,699,620	47,775	39,572,587	53,538,398	13,965,811	30,705
Per cent of increase or decrease (—): <sup>4</sup>								
1923-1925.....		-5.3	-3.5	119.2	31.0	26.2	16.2	24.1
1921-1923.....		106.3	133.2	-38.3	163.8	151.3	128.2	-----
1921-1925.....		95.4	125.1	35.3	245.5	217.2	165.1	-----
1914-1925.....		17.4	143.4	-68.0	112.2	122.1	150.0	135.3
<b>OTHER NONFERROUS METALS<sup>5</sup></b>								
1923.....	4	257	\$387,180	-----	\$4,541,083	\$5,382,097	\$841,014	1,144
1921.....	5	434	747,682	\$396,612	4,054,663	7,060,205	3,005,542	( <sup>3</sup> )
1919.....	13	2,041	2,968,148	-----	14,957,367	20,074,504	5,117,137	11,700
Per cent of increase or decrease (—): <sup>4</sup>								
1921-1923.....		-40.8	-48.2	-----	12.0	-23.8	-72.0	-----

<sup>1</sup> Including also cost of fuel and electric power.<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)<sup>3</sup> Not called for on schedule.<sup>4</sup> This figure differs slightly from the corresponding one published in the report for 1919 because of the exclusion here and the inclusion in the previous report of data for purchased power other than electric. (See footnote 1, Table 3, p. 98.)<sup>5</sup> Not computed where base is less than 100.<sup>6</sup> No establishments classifiable in this industry were reported at the census for 1925.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

INDUSTRY AND STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
THE GROUP AS A WHOLE							
United States:							
1925 <sup>1</sup> .....	32,992	32,481	32,488	33,181	32,636	32,588	32,389
1923 <sup>1</sup> .....	35,146	33,643	33,585	34,932	34,778	35,503	35,657
1921 <sup>1</sup> .....	19,014	25,961	23,918	22,664	20,040	17,095	16,840
1919 <sup>1</sup> .....	39,620	50,502	45,567	41,252	39,616	38,152	36,110
Arizona.....	3,106	3,066	3,089	3,172	3,215	3,179	3,121
Michigan.....	406	426	421	419	387	395	403
Montana.....	3,063	2,973	3,106	3,187	3,096	3,016	3,004
New Jersey.....	3,362	3,313	3,194	3,321	3,246	3,411	3,323
Pennsylvania.....	3,395	3,358	3,376	3,318	3,330	3,348	3,337
West Virginia.....	994	959	1,001	978	1,017	1,048	1,043
COPPER							
United States:							
1925 <sup>1</sup> .....	15,588	15,439	15,268	15,760	15,639	15,755	15,464
1923 <sup>1</sup> .....	16,777	15,598	15,567	16,341	16,228	16,603	16,690
1921 <sup>1</sup> .....	8,293	12,478	11,813	11,354	9,754	6,880	6,601
1919 <sup>1</sup> .....	17,345	23,627	20,451	18,652	17,616	16,426	15,742
Arizona.....	3,106	3,066	3,089	3,172	3,215	3,179	3,121
Michigan.....	406	426	421	419	387	395	403
New Jersey.....	3,362	3,313	3,194	3,321	3,246	3,411	3,323
LEAD							
United States:							
1925 <sup>1</sup> .....	6,115	5,980	5,891	6,146	5,929	5,832	5,947
1923 <sup>1</sup> .....	6,194	6,084	6,048	6,474	6,305	6,564	6,437
1921 <sup>1</sup> .....	4,509	5,710	5,217	4,909	4,497	4,279	4,186
1919 <sup>1</sup> .....	6,438	8,054	7,551	6,441	6,402	6,353	6,001
Utah.....	1,946	1,897	1,849	1,956	1,925	1,932	1,874
ZINC							
United States:							
1925 <sup>1</sup> .....	11,289	11,062	11,329	11,275	11,068	11,001	10,978
1923 <sup>1</sup> .....	11,918	11,652	11,779	11,838	11,965	12,059	12,252
1921 <sup>1</sup> .....	5,778	7,368	6,370	5,811	5,322	5,471	5,595
1919 <sup>1</sup> .....	13,796	16,159	15,464	14,339	13,815	13,469	12,250
Illinois.....	3,013	3,012	3,005	2,985	2,946	2,906	2,893
Oklahoma.....	1,924	1,989	2,005	1,983	1,779	1,716	1,769
Pennsylvania.....	3,395	3,358	3,376	3,318	3,330	3,348	3,337
West Virginia.....	994	959	1,001	978	1,017	1,048	1,043
OTHER NONFERROUS METALS <sup>2</sup>							
United States:							
1923 <sup>1</sup> .....	257	309	303	279	280	277	278
1921 <sup>1</sup> .....	434	407	518	590	467	465	457
1919 <sup>1</sup> .....	2,041	2,682	2,101	1,820	1,783	1,904	2,117

See footnotes at end of table



TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925—Continued

INDUSTRY AND STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	Septem-ber	October	Novem-ber	Decem-ber
<b>THE GROUP AS A WHOLE</b>						
United States:						
1925 <sup>1</sup> .....	33,095	33,204	32,911	33,794	33,273	33,853
1923 <sup>1</sup> .....	35,251	35,546	35,025	36,143	35,673	36,030
1921 <sup>1</sup> .....	16,176	16,521	16,522	16,956	17,513	17,965
1919 <sup>1</sup> .....	37,161	36,925	37,263	37,263	37,681	37,948
Arizona.....	3,086	3,117	3,088	3,107	3,026	3,011
Michigan.....	402	410	398	395	403	410
Montana.....	2,951	2,984	3,015	3,162	3,215	3,044
New Jersey.....	3,452	3,425	3,416	3,594	3,321	3,327
Pennsylvania.....	3,327	3,378	3,384	3,424	3,436	3,720
West Virginia.....	956	935	971	1,019	1,014	990
<b>COPPER</b>						
United States:						
1925 <sup>1</sup> .....	15,750	15,802	15,506	15,872	15,395	15,300
1923 <sup>1</sup> .....	16,874	17,457	17,203	17,759	17,384	17,635
1921 <sup>1</sup> .....	6,630	6,839	6,784	6,792	6,749	6,851
1919 <sup>1</sup> .....	16,505	16,551	15,754	15,944	16,284	15,788
Arizona.....	3,086	3,117	3,088	3,107	3,026	3,011
Michigan.....	402	410	398	395	403	410
New Jersey.....	3,452	3,425	3,416	3,594	3,321	3,327
<b>LEAD</b>						
United States:						
1925 <sup>1</sup> .....	6,140	6,034	6,077	6,421	6,368	6,813
1923 <sup>1</sup> .....	6,145	6,146	5,982	6,191	5,966	6,093
1921 <sup>1</sup> .....	3,858	4,179	4,150	4,269	4,367	4,507
1919 <sup>1</sup> .....	5,988	6,011	5,725	6,170	6,255	6,307
Utah.....	1,887	1,886	1,899	2,006	2,074	2,168
<b>ZINC</b>						
United States:						
1925 <sup>1</sup> .....	11,205	11,268	11,328	11,501	11,510	11,940
1923 <sup>1</sup> .....	11,958	11,736	11,645	11,978	12,083	12,076
1921 <sup>1</sup> .....	5,257	5,109	5,225	5,539	6,043	6,220
1919 <sup>1</sup> .....	12,691	13,672	13,807	13,095	13,034	13,857
Illinois.....	2,980	3,000	3,056	3,096	3,137	3,144
Oklahoma.....	1,998	2,005	1,934	1,929	1,963	2,025
Pennsylvania.....	3,327	3,378	3,384	3,424	3,436	3,720
West Virginia.....	956	935	971	1,019	1,014	990
<b>OTHER NONFERROUS METALS <sup>2</sup></b>						
United States:						
1923 <sup>1</sup> .....	274	207	195	215	240	226
1921 <sup>1</sup> .....	451	394	363	356	355	387
1919 <sup>1</sup> .....	1,977	1,991	1,979	2,054	2,108	1,996

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum for "The group as a whole": 1925, 95.7; 1923, 92.9; 1921, 62.3; 1919, 71.5.

<sup>2</sup> No establishments classifiable in this industry were reported at the census for 1925.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num- ber	Capacity	Num- ber	Capacity	Num- ber	Capac- ity
THE GROUP AS A WHOLE						
Prime movers, total.....	6, 635	<i>Horse- power</i> 460, 096	4, 565	<i>Horse- power</i> 446, 047	5, 224	<i>Horse- power</i> 456, 582
Steam engines.....	508	133, 126	544	225, 422	453	157, 639
Steam turbines.....	92	119, 918				
Internal-combustion engines.....	25	1, 984	30	14, 615	58	3, 773
Water wheels and turbines.....	5	2, 896	8	4, 524	10	7, 900
Electric motors driven by purchased current.....	6, 010	202, 173	3, 983	201, 486	4, 564	168, 599
Electric motors, total.....	11, 765	329, 670	10, 542	322, 212	9, 340	278, 416
Driven by purchased current.....	6, 010	202, 173	3, 983	201, 486	4, 564	168, 599
Driven by current generated in establish- ment reporting.....	5, 755	127, 497 <i>Kilo- watts</i>	6, 559	120, 726 <i>Kilo- watts</i>	4, 776	109, 817 <i>Kilo- watts</i>
Electric generators.....	203	179, 859	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>2</sup> )
COPPER						
Prime movers, total.....	4, 019	<i>Horse- power</i> 326, 509	2, 702	<i>Horse- power</i> 332, 943	3, 253	<i>Horse- power</i> 321, 610
Steam engines.....	172	91, 347	264	153, 678	249	106, 520
Steam turbines.....	40	83, 996				
Internal-combustion engines.....	3	558	12	13, 060	9	425
Water wheels and turbines.....	4	1, 890	8	4, 524	9	7, 550
Electric motors driven by purchased current.....	3, 800	148, 718	2, 418	161, 681	2, 932	127, 349
Electric motors, total.....	6, 997	225, 314	5, 945	226, 026	5, 621	184, 255
Driven by purchased current.....	3, 800	148, 718	2, 418	161, 681	2, 932	127, 349
Driven by current generated in establish- ment reporting.....	3, 197	76, 596 <i>Kilo- watts</i>	3, 527	64, 345 <i>Kilo- watts</i>	2, 689	56, 906 <i>Kilo- watts</i>
Electric generators.....	101	96, 134	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>2</sup> )
LEAD						
Prime movers, total.....	1, 366	<i>Horse- power</i> 47, 219	1, 141	<i>Horse- power</i> 42, 377	925	<i>Horse- power</i> 49, 668
Steam engines.....	47	13, 374	139	20, 519	57	17, 880
Steam turbines.....	7	5, 083				
Internal-combustion engines.....					3	7, 025
Water wheels and turbines.....					8	84
Electric motors driven by purchased current.....	1, 312	28, 762	1, 002	21, 858	856	350
Electric motors, total.....	1, 758	33, 795	1, 609	28, 071	1, 100	24, 329
Driven by purchased current.....	1, 312	28, 762	1, 002	21, 858	856	24, 329
Driven by current generated in establish- ment reporting.....	446	5, 033 <i>Kilo- watts</i>	607	6, 213 <i>Kilo- watts</i>	244	8, 206 <i>Kilo- watts</i>
Electric generators.....	22	8, 897	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>1</sup> )	( <sup>2</sup> )

See footnotes at end of table

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919—Con.

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num-ber	Capac-ity	Num-ber	Capac-ity	Num-ber	Capac-ity
<b>ZINC</b>						
Prime movers, total.....	1, 250	<i>Horse-power</i> 86, 368	585	<i>Horse-power</i> 69, 583	887	<i>Horse-power</i> 73, 604
Steam engines.....	284	28, 405	139	50, 975	163	28, 802
Steam turbines.....	45	30, 839				
Internal-combustion engines.....	22	1, 426	18	1, 555	46	3, 264
Water wheels and turbines.....	1	1, 005				
Electric motors driven by purchased current.....	898	24, 693	428	17, 053	639	13, 508
Electric motors, total.....	3, 010	70, 561	2, 852	67, 146	2, 171	52, 996
Driven by purchased current.....	898	24, 693	428	17, 053	639	13, 508
Driven by current generated in establishment reporting.....	2, 112	45, 868 <i>Kilo-watts</i> 74, 828	2, 424	50, 093 <i>Kilo-watts</i> (2)	1, 532	39, 488 <i>Kilo-watts</i> (2)
Electric generators.....	80		(2)		(2)	
<b>OTHER NONFERROUS METALS<sup>1</sup></b>						
Prime movers, total.....			137	<i>Horse-power</i> 1, 144	150	<i>Horse-power</i> 11, 700
Steam engines.....			2	250	14 8	4, 437 3, 850
Steam turbines.....						
Internal-combustion engines.....						
Water wheels and turbines.....						
Electric motors driven by purchased current.....			135	894	137	3, 413
Electric motors, total.....			136	969	448	8, 630
Driven by purchased current.....			135	894	137	3, 413
Driven by current generated in establishment reporting.....			1	75 <i>Kilo-watts</i> (2)	311	5, 217 <i>Kilo-watts</i> (2)
Electric generators.....			(2)		(2)	

<sup>1</sup> These totals differ slightly from the corresponding ones published in the report for 1919 because of the exclusion here and the inclusion in the previous report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

<sup>3</sup> No establishments classifiable in this industry were reported at the census for 1925.

TABLE 4.—PRODUCTION OF COPPER, LEAD, AND ZINC, BY SOURCE AND QUANTITY, FOR THE UNITED STATES: 1919 TO 1925<sup>1</sup>

SOURCE	TONS OF 2,000 POUNDS			
	1925	1923	1921	1919
<b>COPPER</b>				
Smelter output.....	837,435	717,500	252,793	643,210
Refinery production of new copper:				
Primary.....	1,102,287	989,918	475,389	885,084
Domestic ore <sup>2</sup> .....	841,448	732,082	304,707	716,743
Foreign ore <sup>2</sup> .....	260,839	257,836	170,682	168,341
Secondary.....	99,180	65,719	53,243	35,643
<b>LEAD</b>				
Primary, refined.....	766,969	618,322	448,589	482,220
Domestic ore.....	654,921	543,641	398,222	424,433
Foreign ore.....	112,048	74,481	50,367	57,787
Secondary.....	226,880	194,490	103,780	122,100
Antimonial.....	19,667	14,190	10,064	13,874
<b>ZINC</b>				
Primary.....	572,946	510,434	200,500	465,743
Domestic ore.....	555,631	508,335	198,232	452,272
Foreign ore.....	17,315	2,099	2,268	13,471
Secondary.....	128,272	138,840	78,300	108,372
Redistilled.....	39,181	39,434	17,573	19,748
Remelted.....	22,491	25,776	16,260	20,162
Recovered from alloys.....	66,600	73,630	44,467	68,462

<sup>1</sup> From Mineral Resources of the United States, issued by the United States Bureau of Mines.<sup>2</sup> The distribution of refined copper as of domestic and foreign origin is only approximate, it being impossible to make an accurate distribution at this stage of manufacture.

TABLE 5.—PRODUCTS, BY KIND AND VALUE: 1925

[The total value of products of copper and lead smelters and refineries includes extensive duplications due to the fact that blister copper (\$212,585,900), lead bullion (\$80,309,776), and doré (\$23,143,757), the products of smelters, are used as materials by refineries, their values being included again with the values of refined copper, lead, gold, silver, and other products]

KIND	Value	KIND	Value
<b>COPPER SMELTERS AND REFINERIES</b>		<b>LEAD SMELTERS AND REFINERIES—continued</b>	
Total value, all products.....	\$665,176,767	Silver <sup>1</sup> .....	\$28,794,158
Blister copper.....	212,585,900	Gold <sup>1</sup> .....	24,476,947
Lead bullion.....	12,470,842	Doré.....	15,159,154
Refined copper.....	321,271,243	Platinum and palladium <sup>1</sup> .....	22,785
Silver <sup>1</sup> .....	62,785,654	Paint and paint pigments <sup>1</sup> .....	7,511,308
Gold <sup>1</sup> .....	17,165,520	Other products.....	10,635,164
Doré.....	7,984,603	<b>ZINC SMELTERS</b>	
Pig lead.....	16,212,682	Total value, all products.....	
Platinum and palladium <sup>1</sup> .....	366,217		118,905,590 <sup>1</sup>
Sulphuric acid <sup>1</sup> .....	444,558	Zinc (slab, rolled, etc.).....	91,774,710
Copper sulphate <sup>1</sup> .....	1,019,191	Sulphuric acid <sup>1</sup> .....	3,734,126
Nickel sulphate <sup>1</sup> .....	142,601	Paint and paint pigments <sup>1</sup> .....	14,679,178
Other products.....	12,727,756	Other products.....	8,717,576
<b>LEAD SMELTERS AND REFINERIES</b>			
Total value, all products.....	283,042,542		
Lead.....	67,838,934		
Refined lead.....	123,604,092		

<sup>1</sup> The values reported for gold, silver, platinum and palladium, paint and paint pigments, sulphuric acid, and copper and nickel sulphates should not be considered as representing the total production of these commodities in 1925, but merely as the values of those produced in smelters and refineries.

TABLE 6.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

INDUSTRY AND STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY			Horse-power
		Total	Salaried officers and employees	Wage earners (average number)	
THE GROUP AS A WHOLE					
United States.....	71	36,251	13,259	32,992	460,096
Arizona.....	8	3,437	331	3,106	75,703
Michigan.....	3	450	44	406	3,086
Montana.....	4	3,545	482	3,063	107,763
New Jersey.....	3	3,855	493	3,362	53,342
Pennsylvania.....	3	3,649	254	3,395	44,414
West Virginia.....	3	1,059	65	994	3,203
All other States <sup>1</sup> .....	47	20,256	1,590	18,666	172,585
COPPER					
United States.....	26	17,276	1,688	15,588	326,509
Arizona.....	8	3,437	331	3,106	75,703
Michigan.....	3	450	44	406	3,086
New Jersey.....	3	3,855	493	3,362	53,342
All other States <sup>2</sup> .....	12	9,534	820	8,714	194,378
LEAD					
United States.....	17	6,819	704	6,115	47,219
Utah.....	3	2,200	254	1,946	17,807
All other States <sup>3</sup> .....	14	4,619	450	4,169	29,412
ZINC					
United States.....	28	12,156	867	11,289	86,368
Illinois.....	5	3,228	215	3,013	13,030
Oklahoma.....	7	2,000	76	1,924	4,664
Pennsylvania.....	3	3,649	254	3,395	44,414
West Virginia.....	3	1,059	65	994	3,203
All other States <sup>4</sup> .....	10	2,220	257	1,963	20,157

See footnotes at end of table

TABLE 6.—GENERAL STATISTICS, BY STATES: 1925—Continued

[See note at head of this table]

INDUSTRY AND STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>2</sup>
<b>THE GROUP AS A WHOLE</b>						
United States.....	\$7,278,316	\$47,947,907	\$50,201	\$912,063,567	\$1,067,124,899	\$155,061,332
Arizona.....	823,051	4,331,592	6,826	75,988,685	106,926,324	30,937,639
Michigan.....	105,760	474,075	28,085	16,297,113	20,021,997	3,724,884
Montana.....	1,038,013	4,899,147	-----	80,564,592	107,808,350	27,243,758
New Jersey.....	737,085	5,429,886	-----	212,702,494	224,039,089	11,336,595
Pennsylvania.....	665,378	5,206,544	-----	19,465,594	33,945,340	14,479,746
West Virginia.....	156,092	1,636,214	-----	9,402,737	11,865,085	2,462,348
All other States <sup>4</sup> .....	3,752,937	25,969,849	15,290	497,642,352	562,518,714	64,876,362
<b>COPPER</b>						
United States.....	3,302,094	22,641,626	34,911	573,190,428	665,176,767	91,986,339
Arizona.....	823,051	4,331,592	6,826	75,988,685	106,926,324	30,937,639
Michigan.....	105,760	474,075	28,085	16,297,113	20,021,997	3,724,884
New Jersey.....	737,085	5,429,886	-----	212,702,494	224,039,089	11,336,595
All other States <sup>4</sup> .....	1,636,198	12,405,473	-----	268,202,136	314,189,357	45,987,221
<b>LEAD</b>						
United States.....	1,615,846	9,001,580	-----	254,881,029	283,042,542	28,161,513
Utah.....	595,103	2,943,015	-----	37,311,319	45,482,711	8,171,392
All other States <sup>4</sup> .....	1,020,743	6,058,565	-----	217,569,710	237,559,831	19,990,121
<b>ZINC</b>						
United States.....	2,360,376	16,304,701	15,290	83,992,110	118,905,590	34,913,480
Illinois.....	771,726	4,135,891	-----	15,446,702	21,871,000	6,424,298
Oklahoma.....	205,798	2,796,633	520	16,747,401	21,047,969	4,300,568
Pennsylvania.....	665,378	5,206,544	-----	19,465,594	33,945,340	14,479,746
West Virginia.....	156,092	1,636,214	-----	9,402,737	11,865,085	2,462,348
All other States <sup>7</sup> .....	561,382	2,529,419	14,770	22,929,676	30,176,196	7,246,520

<sup>1</sup> Not including 494 salaried officers and employees of central administrative offices, with salaries aggregating \$1,908,001. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals as follows: The industry as a whole, 3,753 salaried officers and employees and \$9,186,317 salaries; copper, 1,688, salaried officers and employees and \$3,302,094 salaries; lead, 722 salaried officers and employees and \$1,728,679 salaries; and zinc, 1,343 salaried officers and employees and \$4,155,544 salaries. (See "Central-administrative-office employees," p. 1193.)

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> See Table 5, p. 969, for distribution of products by kind and value.

<sup>4</sup> Arkansas, 2 establishments; California, 2; Colorado, 4; Idaho, 1; Illinois, 7; Indiana, 3; Kansas, 4; Maryland, 1; Missouri, 2; Nebraska, 1; Nevada, 1; New York, 1; Oklahoma, 8; Tennessee, 2; Texas, 2; Utah, 4; Virginia, 1; Washington, 1.

<sup>5</sup> California, 1 establishment; Maryland, 1; Montana, 2; Nevada, 1; New York, 1; Tennessee, 2; Texas, 1; Utah, 1; Virginia, 1; Washington, 1.

<sup>6</sup> California, 1 establishment; Colorado, 2; Idaho, 1; Illinois, 2; Indiana, 2; Kansas, 1; Missouri, 2; Montana, 1; Nebraska, 1; Oklahoma, 1.

<sup>7</sup> Arkansas, 2 establishments; Colorado, 2; Indiana, 1; Kansas, 3; Montana, 1; Texas, 1.

# SUMMARY FOR INDUSTRIES IN GROUP 10 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES

[This table presents summary statistics for the industries in Group 10 other than those for which separate reports are given on pp. 933-971. More detailed statistics for 1925 are given, for the United States as a whole, in Table II, p. 1288; and summaries for States and large cities, carrying statistics for these industries in comparison with those for other industries, appear in Tables III and IV, pp. 1302 and 1381. See "General explanations," pp. 3-12; in particular, "Limitation of statistics to establishments reporting products valued at \$5,000 or more," p. 5, "Power equipment," p. 6, "Cost of materials," p. 7, "Value added by manufacture," p. 8, and "State and city statistics," p. 10.]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>COPPER, TIN, AND SHEET-IRON WORK, INCLUDING GALVANIZED-IRON WORK, NOT ELSEWHERE CLASSIFIED</b>							
<i>United States</i>							
1925.....	2, 107	24, 996	35, 273	\$37, 824, 995	\$84, 079, 626	1 \$175, 042, 925	\$90, 063, 299
1923.....	2, 524	23, 852	34, 243	42, 445, 932	93, 507, 014	1 138, 908, 028	95, 401, 014
1921.....	3, 105	25, 172	( <sup>2</sup> )	36, 501, 785	75, 896, 102	1 148, 776, 164	72, 880, 062
1919.....	4, 796	27, 640	24, 130	33, 866, 823	80, 898, 528	1 160, 313, 945	79, 415, 417
<i>States, 1925</i>							
Alabama.....	9	236	171	215, 757	844, 808	1, 418, 666	573, 858
Arkansas.....	7	61	139	54, 776	555, 199	1, 024, 641	269, 442
California.....	238	1, 643	1, 869	2, 526, 820	4, 390, 921	11, 005, 941	6, 075, 020
Colorado.....	23	270	438	365, 503	973, 905	1, 696, 427	722, 522
Connecticut.....	28	210	326	327, 891	552, 420	1, 255, 669	693, 249
Delaware.....	6	45	16	58, 969	79, 245	207, 829	128, 584
District of Columbia.....	12	119	57	199, 464	198, 942	522, 044	328, 102
Florida.....	15	251	465	275, 622	807, 020	1, 543, 750	676, 730
Georgia.....	12	129	179	143, 256	1, 016, 037	1, 588, 682	572, 645
Illinois.....	235	2, 541	3, 351	4, 588, 122	8, 271, 251	18, 917, 690	10, 646, 409
Indiana.....	35	436	652	590, 393	1, 642, 477	3, 247, 556	1, 606, 079
Iowa.....	50	452	1, 012	579, 771	1, 772, 384	3, 222, 014	1, 449, 630
Kansas.....	14	108	290	145, 498	603, 029	992, 416	359, 387
Kentucky.....	22	459	919	641, 144	3, 786, 085	5, 340, 133	1, 554, 043
Louisiana.....	18	331	334	379, 741	679, 626	1, 528, 710	549, 084
Maine.....	10	55	29	86, 258	126, 248	300, 248	174, 000
Maryland.....	32	1, 216	1, 217	1, 296, 315	2, 416, 163	4, 883, 013	2, 467, 450
Massachusetts.....	94	1, 296	1, 280	1, 984, 486	2, 916, 208	7, 445, 487	4, 529, 279
Michigan.....	66	1, 336	3, 028	1, 993, 996	3, 682, 874	9, 255, 812	5, 562, 938
Minnesota.....	63	723	1, 242	927, 998	1, 968, 972	4, 355, 928	2, 886, 956
Mississippi.....	4	49	-----	56, 089	90, 981	174, 243	83, 262
Missouri.....	84	802	1, 468	1, 149, 809	3, 397, 649	6, 317, 348	2, 919, 699
Montana.....	10	30	16	48, 440	192, 602	306, 346	113, 944
Nebraska.....	26	146	231	194, 708	454, 179	956, 587	502, 408
New Jersey.....	76	861	714	1, 633, 125	2, 791, 223	7, 042, 011	4, 250, 788
New York.....	276	3, 357	2, 862	6, 032, 846	7, 814, 433	20, 397, 009	12, 582, 576
North Carolina.....	14	100	36	114, 526	283, 378	616, 492	333, 114
North Dakota.....	5	30	101	42, 380	296, 909	481, 094	184, 185
Ohio.....	131	2, 376	4, 472	3, 373, 648	9, 361, 389	17, 580, 827	8, 219, 438
Oklahoma.....	13	73	51	122, 027	247, 750	492, 997	245, 247
Oregon.....	45	336	517	525, 397	1, 018, 035	2, 173, 311	1, 155, 276
Pennsylvania.....	148	2, 349	2, 851	3, 427, 921	8, 450, 182	17, 424, 612	8, 974, 430
Rhode Island.....	19	183	92	309, 684	392, 275	1, 018, 458	626, 183
South Dakota.....	5	25	70	34, 211	232, 153	413, 360	181, 207
Tennessee.....	17	116	96	159, 011	503, 894	942, 711	438, 817
Texas.....	67	478	584	669, 821	1, 982, 142	3, 545, 573	1, 659, 431
Utah.....	16	77	111	102, 730	256, 645	549, 658	298, 013
Vermont.....	4	31	26	36, 253	109, 164	257, 519	148, 555
Virginia.....	8	96	2, 172	105, 373	620, 985	950, 238	329, 253
Washington.....	64	477	487	779, 792	1, 224, 560	2, 775, 879	1, 551, 315
West Virginia.....	11	177	420	262, 592	2, 039, 943	2, 715, 342	675, 399
Wisconsin.....	61	816	788	1, 134, 910	4, 119, 897	7, 746, 993	3, 627, 066
All other States <sup>3</sup> .....	14	94	64	127, 942	295, 444	610, 921	315, 477

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in copper, tin, sheet-iron, and galvanized-iron work: 1925, \$5,580,937; corresponding amounts for earlier years not calculated. Does not include the following values of copper, tin, and sheet-iron work reported by establishments engaged primarily in other industries: 1925, \$10,188,011; 1923, \$6,463,448; 1921, \$6,702,962; 1919, \$1,907,785.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Arizona, 3 establishments; Idaho, 3; Nevada, 1; New Hampshire, 3; South Carolina, 3; Wyoming, 1.

## SUMMARY FOR INDUSTRIES IN GROUP 10 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 972]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
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## ELECTROPLATING

[The plating, by the electric process, of various metal articles, such as automobile accessories, lighting fixtures, musical instruments, and jewelry, with gold, silver, nickel, or copper. The value of products for the industry represents, to a large extent, the value of electroplating done on articles owned by others. Many establishments which manufacture plated jewelry or other plated goods do their own electroplating and do not report its value separately.]

<i>United States</i>							
1925-----	449	3,337	10,743	\$5,253,845	\$2,541,165	<sup>1</sup> \$12,440,510	\$9,899,345
1923-----	446	3,374	9,505	5,195,183	2,612,673	<sup>1</sup> 12,297,333	9,684,660
1921-----	392	2,460	( <sup>2</sup> )	3,562,980	1,959,639	<sup>1</sup> 8,040,954	6,081,315
1919-----	515	3,024	6,788	3,798,605	2,639,248	<sup>1</sup> 10,359,617	7,750,369
<i>States, 1925</i>							
California-----	40	268	951	452,353	166,286	1,016,696	850,410
Colorado-----	3	7	28	11,364	5,720	26,966	21,216
Connecticut-----	11	55	233	80,719	52,197	217,972	165,775
District of Columbia-----	6	27	63	40,329	22,035	105,079	53,041
Illinois-----	60	713	2,037	1,260,009	574,271	2,822,823	2,248,552
Indiana-----	17	70	395	109,698	57,493	262,727	205,234
Iowa-----	4	22	82	31,139	19,319	65,941	49,622
Maryland-----	8	41	119	62,869	19,945	120,058	100,113
Massachusetts-----	38	324	760	428,297	183,265	1,000,004	816,739
Michigan-----	12	118	567	227,611	81,121	456,344	405,223
Minnesota-----	7	34	128	47,490	26,546	102,268	75,722
Missouri-----	13	75	238	125,505	52,376	276,581	224,205
New Jersey-----	23	133	351	158,646	119,691	456,255	336,564
New York-----	86	602	1,559	977,028	449,153	2,285,768	1,836,615
Ohio-----	35	287	1,448	454,022	182,707	1,058,420	875,713
Oregon-----	3	15	45	28,218	7,516	64,190	56,674
Pennsylvania-----	35	229	875	330,418	306,836	966,571	659,735
Rhode Island-----	12	93	117	96,093	65,453	283,277	217,324
Texas-----	5	24	68	33,144	9,545	70,795	61,250
Washington-----	7	26	80	46,628	24,049	134,424	110,375
Wisconsin-----	12	107	371	161,504	68,558	375,620	307,062
All other States <sup>3</sup> -----	12	67	228	90,681	47,080	238,761	151,681

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in electroplating: 1925, \$142,376; corresponding amounts for earlier years not calculated. Does not include the following receipts for electroplating reported by establishments engaged primarily in other industries: 1925, \$506,269; 1923, \$124,314; 1921, \$94,968; 1919, \$77,965.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Delaware, 1 establishment; Georgia, 1; Kentucky, 2; Louisiana, 1; Maine, 1; Nebraska, 2; Oklahoma, 1; Tennessee, 2; West Virginia, 1.

## FIRE EXTINGUISHERS, CHEMICAL

[The manufacture of chemical engines and hand appliances for extinguishing fire]

<i>United States</i>							
1925-----	26	842	1,440	\$1,131,127	\$4,122,137	<sup>1</sup> \$8,037,174	\$3,915,037
1923-----	26	762	1,235	547,420	3,366,159	<sup>1</sup> 6,152,082	2,785,923
1921-----	31	580	( <sup>2</sup> )	625,958	2,081,052	<sup>1</sup> 4,254,261	2,173,209
1919-----	32	777	855	751,119	2,693,416	<sup>1</sup> 5,563,180	2,869,764
<i>States, 1925</i>							
Missouri-----	3	38	138	50,175	187,814	341,351	153,537
Ohio-----	5	94	140	127,160	367,855	702,568	334,713
All other States <sup>3</sup> -----	18	710	1,162	953,792	3,566,468	6,993,255	3,426,787

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of chemical fire extinguishers: 1925, \$692,810; corresponding amounts for earlier years not calculated. Does not include the following values of chemical fire extinguishers made as secondary products by establishments classified in other industries: 1923, \$42,211; 1921, \$89,502; 1919, \$163,945; none reported for 1925.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 1 establishment; Delaware, 1; Illinois, 2; Indiana, 1; Massachusetts, 3; Michigan, 3; New Jersey, 1; New York, 4; Pennsylvania, 1; Wisconsin, 1. New York and New Jersey reported larger values of products than either of the States for which figures are shown.



## SUMMARY FOR INDUSTRIES IN GROUP 10 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 972]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>GAS AND ELECTRIC FIXTURES, NOT INCLUDING LAMPS AND REFLECTORS</b>							
<i>Principal products:</i> Brackets, chandeliers, electroliers, sconces, burners, domes, mantles, etc. (Complete lamps with their standards, such as floor, boudoir, and bridge lamps, are classified under "Lamps and reflectors, not including electric bulbs.")							
<i>United States</i>							
1925	329	11,565	13,728	\$16,534,114	\$28,249,612	<sup>1</sup> \$68,841,383	\$40,591,771
1923	350	12,315	13,818	15,654,181	25,965,880	<sup>1</sup> 61,749,494	35,783,614
1921	308	9,419	(?)	11,060,076	18,787,740	<sup>1</sup> 42,889,905	24,102,165
1919	341	9,795	9,656	9,802,380	20,258,538	<sup>1</sup> 42,267,953	22,009,415
<i>States, 1925</i>							
California	46	669	598	1,127,213	1,450,695	4,049,057	2,589,362
Illinois	45	2,074	3,069	3,266,315	4,547,710	12,454,595	7,906,885
Maryland	5	40	30	38,767	130,890	316,326	185,436
Massachusetts	6	37	20	71,478	55,221	215,443	160,222
Minnesota	5	46	81	65,872	115,138	264,491	149,353
Missouri	10	351	664	516,860	1,054,559	2,331,603	1,277,044
New Jersey	13	846	1,053	846,607	1,573,347	3,226,427	1,653,080
New York	91	3,809	3,388	5,785,450	8,715,510	21,583,190	12,867,680
Ohio	26	882	811	1,048,063	1,945,728	4,569,267	2,623,539
Oregon	5	52	31	79,850	190,956	451,255	260,299
Pennsylvania	28	639	660	1,010,425	1,520,011	3,784,377	2,264,366
Washington	10	100	110	179,872	198,419	550,636	352,217
Wisconsin	11	427	231	549,656	1,468,652	2,817,139	1,348,487
All other States	28	1,593	2,982	1,947,686	5,273,776	12,227,577	6,953,801

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of gas and electric fixtures: 1925, \$5,898,860; corresponding amounts for earlier years not calculated. Does not include the following values of gas and electric fixtures made as secondary products by establishments classified in other industries: 1925, \$5,313,757; 1923, \$3,830,513; 1921, \$4,287,657; 1919, \$1,725,624.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Colorado, 3 establishments; Connecticut, 8; Indiana, 2; Iowa, 3; Kansas, 1; Kentucky, 2; Louisiana, 1; Michigan, 4; Nebraska, 1; Oklahoma, 1; Rhode Island, 1; Virginia, 1.

**GOLD AND SILVER, LEAF AND FOIL**

*Principal products:* Gold leaf for sign painters, decorators, and bookbinders; gold foil. Some silver leaf was also reported]

<i>United States</i>							
1925	84	1,148	326	\$1,112,685	\$1,838,611	<sup>1</sup> \$3,745,807	\$1,907,196
1923	64	918	281	933,591	1,896,806	3,561,856	1,665,050
1921	72	1,104	(?)	1,042,028	4,994,718	7,014,496	2,019,778
1919	87	950	408	983,600	2,655,335	4,461,568	1,806,233
<i>States, 1925</i>							
California	6	20	1	21,229	28,946	69,450	40,504
Illinois	9	109	23	136,656	119,220	308,107	188,887
Massachusetts	17	152	54	150,197	391,344	643,491	252,147
New Jersey	14	139	26	124,070	145,056	315,942	170,886
New York	27	240	45	272,999	364,152	864,079	499,927
Pennsylvania	4	288	56	240,946	239,325	558,674	319,349
All other States	7	200	121	166,588	550,568	986,064	435,496

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of gold and silver leaf and foil to the amount of \$3,470. Does not include the following values of gold and silver leaf and foil made as secondary products by establishments classified in other industries, to the amount of \$13,523.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 2 establishments; Maine, 1; Maryland, 1; Minnesota, 1; Rhode Island, 2.

## SUMMARY FOR INDUSTRIES IN GROUP 10 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 972]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>GOLD, SILVER, AND PLATINUM, REDUCING AND REFINING, NOT FROM THE ORE</b>							
<i>United States</i>							
1925.....	65	1,258	9,676	\$2,165,685	\$88,867,196	<sup>1</sup> \$95,243,474	\$6,376,278
1923.....	76	901	4,620	1,361,237	65,088,918	<sup>1</sup> 71,920,702	6,831,784
1921.....	77	785	(?)	1,130,572	41,055,751	<sup>1</sup> 45,974,226	4,918,475
1919.....	87	644	3,141	843,608	49,736,978	<sup>1</sup> 55,483,215	5,746,237
<i>States, 1925</i>							
Massachusetts.....	6	24	131	29,600	1,586,496	1,800,989	214,493
New Jersey.....	17	832	7,392	1,433,712	51,202,758	54,662,330	3,459,572
New York.....	13	61	242	114,979	7,028,039	7,615,150	587,111
Rhode Island.....	16	60	232	103,225	2,476,052	2,858,767	382,716
All other States <sup>2</sup> .....	13	281	1,679	484,169	26,573,851	28,306,238	1,732,387

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in reducing and refining gold, silver, and platinum, not from the ore; 1925, \$6,942,377; corresponding amounts for earlier years not calculated. Does not include the following values of gold, silver, and platinum reduced, and refined, not from the ore, reported as secondary products by establishments classified in other industries: 1925, \$684,762; 1923, \$927,152; 1921, \$739,013. No comparable data for 1919 available.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 4 establishments; Connecticut, 3; Illinois, 2; Louisiana, 1; Michigan, 1; Ohio, 1; Pennsylvania, 1.

## JEWELRY

[Principal products: Articles, chiefly for personal adornment, made from gold, silver, platinum, gold-filled metal, rolled-gold plate, bronze, brass, copper, or other metals, plain, engraved, or chased, and with or without precious or semiprecious stones]

<i>United States</i>							
1925.....	1,468	23,837	17,296	\$35,177,020	\$79,885,823	<sup>1</sup> \$166,816,370	\$86,930,547
1923.....	1,622	26,354	16,851	36,423,704	83,983,485	<sup>1</sup> 174,033,912	90,050,427
1921.....	1,671	23,482	(?)	29,938,313	58,059,348	<sup>1</sup> 127,230,777	69,171,429
1919.....	2,054	30,871	15,096	35,863,718	110,450,683	<sup>1</sup> 203,939,230	93,488,547
<i>States, 1925</i>							
California.....	74	396	172	772,009	1,236,745	3,126,769	1,890,024
Colorado.....	8	49	17	73,167	79,525	236,599	157,074
Connecticut.....	9	123	159	155,062	196,196	632,733	436,537
Illinois.....	72	952	454	1,763,262	2,970,981	6,748,054	3,777,073
Indiana.....	9	119	103	166,236	357,612	972,279	614,667
Iowa.....	7	48	36	81,725	35,235	172,418	137,183
Kentucky.....	5	18	9	20,126	24,089	65,087	40,998
Louisiana.....	4	64	54	100,565	37,326	188,465	151,139
Maryland.....	11	86	39	141,849	210,453	566,984	356,531
Massachusetts.....	140	5,056	4,381	6,378,158	12,453,539	26,156,151	13,702,612
Michigan.....	17	174	89	340,691	875,214	2,079,812	1,204,593
Minnesota.....	14	172	66	247,209	407,953	938,227	530,274
Missouri.....	17	269	107	445,875	448,776	1,240,582	791,806
Nebraska.....	6	32	24	48,492	34,585	114,072	79,487
New Jersey.....	152	2,568	1,776	4,330,351	11,157,342	23,113,692	11,956,350
New York.....	542	5,237	3,602	10,226,140	30,165,485	59,506,569	29,341,084
Ohio.....	39	475	211	756,017	1,285,061	3,088,124	1,803,063
Oregon.....	5	24	4	50,291	39,791	121,663	81,872
Pennsylvania.....	71	627	322	1,035,414	1,990,270	4,639,491	2,649,221
Rhode Island.....	220	7,039	5,339	7,544,926	15,442,069	31,616,003	16,173,934
South Dakota.....	3	12	4	9,317	12,679	46,534	33,855
Texas.....	7	45	18	76,723	67,707	249,458	181,751
Washington.....	12	106	247	204,224	178,160	492,527	314,358
Wisconsin.....	7	58	25	80,364	56,025	257,876	201,851
All other States <sup>3</sup> .....	17	88	38	128,827	122,996	446,201	323,205

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of jewelry: 1925, \$1,168,671; corresponding amounts for earlier years not calculated. Does not include the following values of jewelry made as secondary products by establishments classified in other industries: 1925, \$2,261,948; 1923, \$740,833; 1921, \$1,342,270; 1919, \$1,821,552.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Arkansas, 1 establishment; District of Columbia, 1; Florida, 1; Georgia, 1; Kansas, 2; Maine, 1; Montana, 2; North Dakota, 1; Oklahoma, 1; South Carolina, 1; Tennessee, 2; Utah, 2; Virginia, 1.

# CENSUS OF MANUFACTURES: 1925

## SUMMARY FOR INDUSTRIES IN GROUP 10 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 972]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
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### LAMPS AND REFLECTORS, NOT INCLUDING ELECTRIC BULBS <sup>1</sup>

*Principal products:* Lamps for motor vehicles; marine lamps; desks, table, bridge, and boudoir lamps; miners' lamps; lanterns; reflectors for show cases, stage lighting, etc. (Manufacturers of incandescent electric bulbs are classified in the "Electrical machinery, apparatus, and supplies" industry)

<i>United States</i>							
1925.....	188	10,769	16,310	\$14,537,944	\$29,521,206	<sup>2</sup> \$60,857,006	\$31,335,800
1923.....	185	10,604	16,716	13,442,982	26,673,659	<sup>2</sup> 57,229,133	30,555,474
1921.....	157	6,447	( <sup>3</sup> )	7,463,114	14,013,866	<sup>2</sup> 29,164,493	15,150,627
1919.....	171	8,360	12,622	9,292,497	18,420,033	<sup>2</sup> 38,098,917	19,669,884
<i>States, 1925</i>							
California.....	9	144	225	204,762	378,811	928,754	549,943
Connecticut.....	6	211	268	227,652	321,105	976,414	655,309
Illinois.....	45	3,459	3,591	4,401,512	6,536,881	15,881,875	9,344,994
Maryland.....	4	21	34	19,641	55,739	147,656	91,917
Massachusetts.....	10	255	532	337,535	576,026	1,460,143	884,117
Michigan.....	6	1,360	3,930	1,922,735	6,628,734	9,856,571	3,227,837
New Jersey.....	3	31	6	45,050	68,353	134,912	66,559
New York.....	56	2,061	1,209	2,824,849	5,273,559	11,384,420	6,110,861
Ohio.....	13	1,306	3,489	1,870,569	4,865,112	8,246,015	3,380,903
Pennsylvania.....	16	459	732	516,856	899,300	1,966,171	1,066,871
All other States <sup>4</sup> .....	20	1,462	2,294	2,166,783	3,917,586	9,874,075	5,966,489

<sup>1</sup> Electric bulbs are products of the "Electrical machinery, apparatus, and supplies" industry.

<sup>2</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of lamps and reflectors, but does not include values of lamps and reflectors made as secondary products by establishments classified in other industries. The total value of lamps and reflectors manufactured in 1925, regardless of the industry classification of the establishments in which manufactured, so far as separately reported to the Bureau of the Census, was \$57,003,621, comprising the following: Motor-vehicle lamps, \$22,792,640; other lamps and lanterns, \$30,794,300; reflectors, \$3,416,681.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Colorado, 1 establishment; Indiana, 8; Kansas, 1; Missouri, 3; Oklahoma, 1; Washington, 3; West Virginia, 1; Wisconsin, 2.

### PENS, GOLD

[The manufacture of gold pens (not including complete fountain and stylographic pens)]

<i>United States</i>							
1925.....	13	226	121	\$299,308	\$588,856	<sup>1</sup> \$1,114,840	\$525,984
1923.....	15	428	191	658,169	1,256,900	<sup>2</sup> 2,319,641	1,062,741
1921.....	12	289	( <sup>3</sup> )	376,399	631,501	<sup>1</sup> 1,335,220	703,719
1919.....	15	416	145	517,123	962,410	<sup>1</sup> 1,801,460	839,050
<i>States, 1925</i>							
New York.....	9	138	85	198,273	405,052	720,053	315,001
All other States <sup>4</sup> .....	4	88	36	101,035	183,804	394,787	210,983

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of gold pens, but does not include value of gold pens made as secondary products by establishments classified in other industries. The total value of gold pens manufactured in 1925, regardless of the industry classification of the establishments in which manufactured, so far as separately reported to the Bureau of the Census, was \$1,144,828.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Massachusetts, 2 establishments; New Jersey, 2.

SUMMARY FOR INDUSTRIES IN GROUP 10 WHICH ARE NOT COVERED BY SEPARATE  
REPORTS, BY STATES—Continued

[See note at head of this table, p. 972]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
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## PLATED WARE

Principal products: Flat and hollow tableware, toilet articles, fancy articles, etc., plated with gold, silver, or other metals]

<i>United States</i>							
1925.....	90	11,290	23,914	\$15,236,348	\$20,070,741	<sup>1</sup> \$54,330,033	\$34,259,292
1923.....	83	12,118	22,390	15,640,896	19,813,842	<sup>1</sup> 53,898,534	34,084,692
1921.....	66	9,635	(2)	10,664,149	12,408,683	<sup>1</sup> 33,944,136	21,535,453
1919.....	68	9,492	14,212	10,913,091	17,766,536	<sup>1</sup> 41,634,585	23,868,049
<i>States, 1925</i>							
Connecticut.....	25	5,563	9,213	7,092,950	10,116,865	26,013,170	15,896,305
Illinois.....	4	92	311	126,304	96,345	381,865	285,520
Massachusetts.....	13	1,216	2,139	1,503,975	1,183,975	3,899,691	2,715,716
New York.....	32	3,514	9,537	5,403,071	7,508,183	20,663,625	13,155,442
Pennsylvania.....	3	97	192	124,980	104,666	304,538	199,872
All other States <sup>2</sup> .....	13	808	2,522	985,068	1,060,707	3,067,144	2,006,437

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of plated ware, but does not include value of plated ware made as a secondary product by establishments classified in other industries. The total value of plated ware manufactured in 1925, regardless of the industry classification of establishments in which manufactured, so far as separately reported to the Bureau of the Census, was \$46,603,073.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 2 establishments; Indiana, 1; Kansas, 1; Maine, 1; New Hampshire, 1; New Jersey, 3; Ohio, 2; Rhode Island, 1; Virginia, 1.

## SILVERSMITHING AND SILVERWARE

Principal products: Hollow and flat tableware, toilet articles, ornaments, vases, fancy articles, novelties, silver-deposited glassware and chinaware, etc. The manufacture of flat and hollow gold table ware is also included in this industry]

<i>United States</i>							
1925.....	93	5,587	7,770	\$8,607,244	\$13,106,356	<sup>1</sup> \$32,531,670	\$19,425,314
1923.....	98	4,972	7,284	7,330,041	10,859,156	<sup>1</sup> 27,206,693	16,347,537
1921.....	103	5,287	(2)	7,150,690	8,964,865	<sup>1</sup> 24,410,809	15,445,944
1919.....	99	6,453	6,843	7,359,409	13,060,929	<sup>1</sup> 29,126,133	16,065,204
<i>States, 1925</i>							
Connecticut.....	8	589	1,000	829,291	1,990,277	4,283,472	2,293,195
Illinois.....	4	28	25	55,484	70,104	151,522	81,418
Maryland.....	5	202	286	291,334	497,253	963,635	466,382
Massachusetts.....	19	1,253	1,556	1,786,540	2,881,726	7,024,637	4,142,911
New Jersey.....	14	912	1,407	1,556,526	1,808,994	4,813,595	3,004,601
New York.....	28	899	666	1,462,264	2,270,773	5,465,521	3,194,748
All other States <sup>2</sup> .....	15	1,704	2,830	2,625,805	3,587,229	9,829,288	6,242,059

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in silversmithing and in the manufacture of silverware, but does not include the values of silversmithing work and silverware reported as a secondary activity or as secondary products by establishments classified in other industries. The total value of silversmithing done and of silverware manufactured in 1925, regardless of the industry classification of the establishments concerned, so far as separately reported to the Bureau of the Census, was \$28,919,289.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 4 establishments; New Hampshire, 1; North Carolina, 1; Ohio, 1; Oregon, 1; Pennsylvania, 2; Rhode Island, 5.

# CENSUS OF MANUFACTURES: 1925

## SUMMARY FOR INDUSTRIES IN GROUP 10 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 972]

YEAR AND STATE	Number of establishments	Wage arners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>STAMPED AND ENAMELED WARE, NOT ELSEWHERE CLASSIFIED</b>							
<i>[The stamping of articles from sheet steel, tin, copper, and zinc, and, in many cases, the enameling of these articles. (Manufacturers of similar articles from aluminum are classified under "Aluminum manufactures.") Principal products: Kitchen utensils, household and hospital ware, perforated screens for milling and mining, motor-vehicle license plates, metal seals, bottle and can caps and stoppers, buckles, suspender and garter trimming, etc.]</i>							
<i>United States</i>							
1925.....	370	29,704	64,346	\$36,106,675	\$77,486,915	<sup>1</sup> \$154,096,183	\$76,609,268
1923.....	329	35,237	68,326	42,635,592	84,517,912	<sup>1</sup> 170,923,386	86,405,474
1921.....	324	24,192	( <sup>2</sup> )	26,862,380	48,232,687	<sup>1</sup> 100,585,381	52,352,694
1919.....	323	34,248	51,263	34,851,311	65,456,652	<sup>1</sup> 143,653,877	78,197,225
<i>States, 1925</i>							
California.....	12	214	385	260,214	650,485	1,536,701	886,216
Connecticut.....	25	1,967	3,427	2,253,915	3,104,015	7,443,728	4,339,713
Illinois.....	54	3,012	6,084	3,766,856	7,399,576	16,363,273	8,963,697
Indiana.....	9	1,194	1,823	1,179,150	2,093,188	4,436,588	2,343,400
Maryland.....	9	1,765	5,188	1,705,921	4,036,648	8,325,455	4,288,807
Massachusetts.....	23	921	3,032	1,282,033	1,937,327	4,745,706	2,808,379
Michigan.....	25	2,119	6,377	3,391,158	7,517,652	13,669,483	6,151,831
Minnesota.....	3	19	43	20,503	22,804	69,442	46,638
Missouri.....	9	725	1,129	786,324	1,753,675	3,953,460	2,199,785
New Jersey.....	34	2,350	3,373	2,950,460	4,126,808	9,830,151	5,703,345
New York.....	63	5,046	12,125	6,103,771	12,891,862	27,252,972	14,361,112
Ohio.....	50	4,842	8,778	5,961,757	17,518,426	28,601,582	11,083,156
Pennsylvania.....	25	1,231	2,150	1,389,240	2,403,890	5,088,220	2,684,321
West Virginia.....	6	1,265	4,855	1,453,777	4,290,814	6,975,851	2,635,037
Wisconsin.....	12	2,675	4,607	3,232,123	7,026,519	14,388,486	7,361,967
All other States <sup>3</sup> .....	11	359	970	369,473	713,217	1,415,083	701,866

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of stamped and enameled ware, not elsewhere classified: 1925, \$8,538,506; corresponding amounts for earlier years not calculated. Does not include the following values of stamped and enameled ware, not elsewhere classified, made as a secondary product by establishments classified in other industries: 1925, \$12,040,648; 1923, \$6,880,312; 1921, \$5,415,608; 1919, \$6,416,745.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Georgia, 1 establishment; Iowa, 1; Kansas, 2; Kentucky, 1; Louisiana, 1; Maine, 1; Rhode Island, 3; Tennessee, 1.

## TIN AND OTHER FOILS, NOT INCLUDING GOLD AND SILVER; COLLAPSIBLE TUBES

*[Principal products: Tin foil, lead foil, composition foil, imitation or artificial gold leaf, and collapsible tubes]*

<i>United States</i>							
1925.....	26	3,618	18,712	\$4,000,948	\$21,341,986	<sup>1</sup> \$30,060,306	\$8,718,320
1923.....	24	3,323	12,595	3,522,505	14,515,160	<sup>1</sup> 23,465,320	8,950,160
1921.....	22	2,178	( <sup>2</sup> )	2,557,354	9,264,808	<sup>1</sup> 14,036,882	4,772,074
1919.....	15	1,908	6,991	1,759,320	13,007,990	<sup>1</sup> 17,920,834	4,912,844
<i>States, 1925</i>							
New York.....	6	626	566	610,119	2,091,826	3,640,567	1,548,741
New Jersey.....	5	857	6,846	1,226,402	7,784,439	9,979,734	2,195,295
All other States <sup>3</sup> .....	15	2,135	11,600	2,164,427	11,465,721	16,440,005	4,974,284

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of tin and other foils (not including gold and silver) and collapsible tubes, but does not include the value of tin and other foils (not including gold and silver) and collapsible tubes made as secondary products by establishments classified in other industries. The total production of tin and other foils (not including gold and silver) and collapsible tubes manufactured in 1925, regardless of the industry classification of the establishments in which manufactured, so far as separately reported to the Bureau of the Census, was 94,236,311 pounds of tin, lead, aluminum, and other foils, valued at \$20,407,691, and 2,763,430 gross of collapsible tubes, valued at \$7,733,506.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 1 establishment; Delaware, 1; Illinois, 4; Kentucky, 1; Missouri, 1; Pennsylvania, 3; Rhode Island, 1; Virginia, 2; West Virginia, 1.

## Group 11.—TOBACCO MANUFACTURES

### THE GROUP AS A WHOLE

In this section summary statistics are shown for the two tobacco industries, separately and in combination.

All branches of tobacco manufacture are subject to internal-revenue taxes. Tobacco manufacturers were requested, in preparing reports for the census, to report the total selling value of all products manufactured during the year, including the total internal-revenue taxes paid and due on these products. In reporting the cost of materials, however, they were requested to confine this to the cost of raw tobacco, fuel, power, containers, supplies, etc., and to omit the cost of revenue stamps purchased or used in connection with their products. The comparability of the values of products for different census years has been affected by changes in rates of taxation.

The excess in the number of tobacco factories shown in the report of the Commissioner of Internal Revenue over the number shown in the census report is due to the following causes: (1) On the records of the Bureau of Internal Revenue the same establishment may appear two or more times—for example, as a manufacturer of cigars, as a manufacturer of tobacco, and as a manufacturer of cigarettes—while for census purposes such an establishment might make only one report and would be classified according to its product of chief value; (2) a separate report is required by the Bureau of Internal Revenue for each plant or factory, regardless of whether operated under the same or under different ownerships, whereas in compiling the census returns two or more factories operated under the same ownership in the same city, town, or village are treated as a single establishment; (3) every dealer in scrap tobacco is required to register with the Bureau of Internal Revenue, whereas the census statistics do not include data for dealers; (4) all growers of perique tobacco are required by the Bureau of Internal Revenue to register as manufacturers of tobacco, but are not covered by the census of manufactures; (5) a large number of manufacturers registered for taxation purposes reported products valued at less than \$5,000, and therefore were not covered by the census of manufactures.

### SUMMARY FOR GROUP 11, TOBACCO MANUFACTURES: 1919 TO 1925

[More detailed statistics for 1925 are given, for the United States as a whole, in Table II, p. 1288; and summary tables for States and for large cities, carrying statistics for these industries in comparison with those for other industries, appear in Tables III and IV, pp. 1302 and 1381. See also "General explanations," pp. 3-12]

INDUSTRY	Cen- sus year <sup>1</sup>	Num- ber of estab- lish- ments	Wage earn- ers (average number)	Wages	Cost of materials	Value of products	Value added by manu- facture	Horse- power
Total-----	1925	2, 623	132, 132	111, 558	425, 769	1, 091, 001	665, 232	42, 075
	1923	3, 672	146, 337	120, 462	515, 865	1, 044, 192	528, 327	43, 515
	1921	4, 372	149, 985	120, 903	608, 689	1, 048, 490	439, 801	( <sup>2</sup> )
	1919	10, 291	157, 097	123, 988	483, 567	1, 012, 933	529, 366	43, 390
Tobacco: Chewing and smoking, and snuff.	1925	178	15, 024	12, 185	94, 418	216, 186	121, 768	17, 541
	1923	206	16, 301	12, 739	146, 374	222, 966	76, 592	18, 621
	1921	226	16, 628	12, 742	156, 477	241, 741	85, 264	( <sup>2</sup> )
	1919	365	18, 324	12, 675	130, 270	239, 271	109, 001	18, 893
Tobacco: Cigars and ciga- rettes.	1925	2, 445	117, 108	99, 373	331, 351	874, 815	543, 464	24, 534
	1923	3, 466	130, 036	107, 723	369, 491	821, 226	451, 735	24, 894
	1921	4, 146	133, 357	108, 161	452, 212	806, 749	354, 537	( <sup>2</sup> )
	1919	9, 926	138, 773	111, 313	353, 297	773, 662	420, 365	24, 497

<sup>1</sup> Data for establishments reporting products valued at less than \$5,000 are included in the figures for 1919, but not in those for subsequent years. (See sec. 10, p. 5.)

<sup>2</sup> Not called for on schedule.

## SUMMARY FOR INDUSTRIES, BY STATES

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>TOBACCO: CHEWING AND SMOKING, AND SNUFF</b>							
<i>United States</i>							
1925.....	178	15,024	17,541	\$12,184,749	\$94,418,640	<sup>1</sup> \$216,186,417	\$121,767,777
1923.....	206	16,301	18,621	12,738,729	146,373,777	<sup>1</sup> 222,965,586	76,591,809
1921.....	223	16,628	(?)	12,742,452	155,476,535	<sup>1</sup> 241,740,732	85,261,197
1919.....	365	18,324	18,893	12,674,736	130,270,388	<sup>1</sup> 239,270,718	109,000,330
<i>States, 1925</i>							
Indiana.....	8	31	13	32,068	117,444	259,789	142,345
Iowa.....	6	45	61	32,925	152,783	355,024	202,241
Kentucky.....	18	2,140	1,900	1,546,303	9,908,337	23,411,869	13,413,532
New York.....	22	157	196	143,520	730,789	1,619,018	918,229
North Carolina.....	9	2,582	1,757	1,466,800	8,505,664	30,339,494	21,530,830
Pennsylvania.....	29	403	771	336,546	1,598,115	3,522,624	1,924,509
Tennessee.....	12	1,057	2,152	767,479	10,322,451	16,819,433	6,496,987
Virginia.....	10	1,803	1,871	1,245,982	8,539,302	17,683,463	9,144,161
All other States <sup>2</sup> .....	64	6,806	8,820	6,613,126	54,150,755	122,145,698	67,994,943

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of chewing and smoking tobacco and snuff: 1925, \$11,059,125; corresponding amounts for earlier years not calculated. Does not include values of chewing and smoking tobacco and snuff made as secondary products by establishments classified in other industries, chiefly the "Tobacco: Cigars and cigarettes" industry: 1925, \$73,529,731; 1923, \$77,484,072; 1921, \$68,736,211; 1919, \$45,087,180.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 1 establishment; Connecticut, 1; Delaware, 1; Illinois, 1; Louisiana, 1; Massachusetts, 6; Michigan, 3; Minnesota, 1; Missouri, 6; New Jersey, 5; Ohio, 23; Texas, 1; West Virginia, 1; Wisconsin, 3. Missouri reported a larger value of products than any State for which figures are shown.

## TOBACCO: CIGARS AND CIGARETTES

<i>United States</i>							
1925.....	2,445	117,108	24,534	\$99,373,421	\$331,350,626	<sup>1</sup> \$874,814,564	\$543,463,938
1923.....	3,466	130,036	24,894	107,723,504	369,491,203	<sup>1</sup> 821,226,819	451,735,616
1921.....	4,146	133,357	(?)	108,161,040	452,211,828	<sup>1</sup> 806,748,865	354,537,037
1919.....	9,926	138,773	24,497	111,313,348	353,297,366	<sup>1</sup> 773,662,495	420,365,120
<i>States, 1925</i>							
Alabama.....	7	49	-----	36,200	42,669	119,492	76,823
Colorado.....	11	270	-----	254,243	428,858	901,550	472,692
Connecticut.....	43	664	13	763,203	929,346	2,370,443	1,441,102
Florida.....	120	11,644	165	12,472,487	16,774,278	40,488,308	23,714,030
Georgia.....	20	292	45	256,338	266,657	692,075	425,418
Idaho.....	3	101	-----	8,784	14,904	33,808	18,904
Illinois.....	224	1,307	34	1,490,098	2,049,268	5,066,941	3,017,673
Indiana.....	58	3,624	750	2,198,471	4,327,071	9,129,734	4,802,663
Iowa.....	41	596	24	447,605	662,200	1,673,444	1,011,244
Kansas.....	18	101	6	74,836	141,285	322,473	181,188
Kentucky.....	22	1,603	376	887,639	2,445,314	6,907,782	4,462,468
Louisiana.....	15	1,580	53	1,036,781	1,872,937	4,448,462	2,575,525
Maine.....	11	124	6	134,975	205,047	491,736	286,689
Maryland.....	30	1,648	240	1,436,783	2,588,271	5,849,478	3,261,207
Massachusetts.....	61	1,869	89	2,355,850	3,732,482	8,212,014	4,479,532
Michigan.....	84	5,101	400	4,069,250	8,350,605	18,318,412	9,967,807
Minnesota.....	47	504	14	399,602	750,925	1,551,768	980,843
Missouri.....	51	616	11	468,630	658,606	1,790,092	1,131,486
Montana.....	5	25	4	29,125	47,078	100,672	53,594
Nebraska.....	15	231	13	150,023	315,072	675,875	360,803
New Jersey.....	80	8,739	1,784	7,725,108	27,277,969	67,745,767	40,467,798
New York.....	484	12,659	2,613	13,158,891	45,835,524	122,613,390	76,777,866
North Carolina.....	12	13,133	8,976	10,533,415	104,587,162	312,736,113	208,148,951
Ohio.....	153	8,150	840	5,743,179	11,455,868	23,205,277	11,749,409
Oregon.....	6	27	5	28,601	42,735	99,154	56,419
Pennsylvania.....	523	29,413	3,508	23,323,156	50,235,647	123,474,097	73,238,450
Rhode Island.....	12	207	18	124,595	274,376	579,081	304,705
South Dakota.....	12	75	3	61,810	116,749	255,991	139,242
Utah.....	5	32	5	35,639	65,192	124,268	59,076
Virginia.....	18	5,218	3,723	3,431,324	28,505,185	72,505,293	44,155,108
Washington.....	9	41	3	33,197	54,745	137,828	83,083
Wisconsin.....	128	700	27	685,296	1,016,743	2,501,229	1,454,436
Wyoming.....	3	7	-----	5,361	14,095	27,164	13,069
All other States <sup>2</sup> .....	114	6,849	786	5,512,906	15,600,763	30,665,348	24,064,585

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of cigars and cigarettes: 1925, \$73,524,923; corresponding amounts for earlier years not calculated. Does not include values of cigars and cigarettes made as secondary products by establishments classified in other industries, chiefly the "Tobacco: Chewing and smoking, and snuff" industry: 1925, \$11,011,250; 1923, \$11,518,622; 1921, \$20,009,878; 1919, \$12,503,172.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Arkansas, 2 establishments; California, 61; Delaware, 4; District of Columbia, 1; Nevada, 1; New Hampshire, 5; Oklahoma, 2; South Carolina, 5; Tennessee, 12; Texas, 5; Vermont, 2; West Virginia, 14.

## Group 12.—MACHINERY, NOT INCLUDING TRANSPORTATION EQUIPMENT

### THE GROUP AS A WHOLE

This group was constituted, at the census for 1923, of industries formerly included in the "Iron and steel and their products" and the "Miscellaneous industries" groups. Some of the establishments in these industries make only special castings or parts for use in the manufacture of machinery and machine tools.

The table following presents summary statistics for the group as a whole and for each industry separately; on pages 983 to 1061 are given statistics for those industries in Group 12 for which separate reports have been published in pamphlet form; and summary statistics for the remaining 7 industries for which separate reports have not been prepared, accompanied by brief descriptions or lists of the principal products, will be found on pages 1062 and 1063.

### SUMMARY FOR GROUP 12, MACHINERY, NOT INCLUDING TRANSPORTATION EQUIPMENT: 1919 TO 1925

[Data for establishments reporting products valued at less than \$5,000 are included in the figures for 1919, but not in those for subsequent years]

INDUSTRY	Census year	Number of establishments	Wage earners (average number)	Wages	Cost of materials	Value of products	Value added by manufacture	Horse-power
Total.....	1925	11,807	858,843	1,225,359	1,985,367	5,020,281	3,034,914	2,714,377
	1923	12,147	907,707	1,253,743	1,891,524	4,727,818	2,836,294	2,300,443
	1921	12,395	662,277	832,781	1,361,163	3,235,075	1,873,912	(1)
	1919	14,821	938,484	1,240,487	1,973,455	4,768,671	2,795,216	2,060,325
Agricultural implements...	1925	303	28,696	37,388	73,850	169,468	95,618	115,325
	1923	312	30,962	40,511	63,492	151,286	87,794	121,975
	1921	353	30,359	39,835	87,267	163,817	76,550	(1)
	1919	521	54,368	66,705	144,572	304,961	160,389	128,249
Cash registers and calculating machines.	1925	41	13,296	21,142	11,166	98,384	87,218	14,016
	1923	37	14,971	22,775	12,453	95,106	82,623	(2)
	1921	49	9,786	13,243	9,573	53,653	44,080	(1)
	1919	65	10,544	22,537	10,890	83,539	72,649	14,645
Electrical machinery, apparatus, and supplies.	1925	1,739	230,921	323,834	636,692	1,540,002	903,310	589,398
	1923	1,671	234,892	365,455	548,627	1,293,002	744,375	480,268
	1921	1,333	161,204	194,242	344,070	833,985	489,915	(1)
	1919	1,404	212,374	238,189	425,098	997,968	572,870	438,082
Engines and water wheels..	1925	220	51,099	73,585	145,784	313,588	167,804	224,194
	1923	249	48,495	70,878	124,543	266,998	142,455	165,137
	1921	296	35,567	52,005	111,698	199,499	87,801	(1)
	1919	370	77,617	105,436	217,551	464,775	247,224	190,005
Foundry and machine-shop products, not elsewhere classified.	1925	8,154	397,838	590,801	883,708	2,232,986	1,349,278	1,424,259
	1923	8,531	448,777	642,431	936,231	2,337,073	1,400,842	1,234,326
	1921	9,013	321,363	412,359	653,364	1,565,527	912,163	(1)
	1919	10,934	482,767	622,571	945,069	2,289,251	1,341,132	1,030,265
Gas machines and gas and water meters.	1925	61	5,514	7,429	13,638	34,292	21,254	7,375
	1923	61	6,127	7,757	14,332	34,250	19,918	7,364
	1921	65	4,280	5,212	9,000	21,956	12,956	(1)
	1919	105	5,589	5,996	10,647	26,267	15,620	8,586

See footnotes at end of table



SUMMARY FOR GROUP 12, MACHINERY, NOT INCLUDING TRANSPORTATION  
EQUIPMENT: 1919 TO 1925—Continued

[See note at head of this summary, p. 981]

INDUSTRY	Cen- sus year	Num- ber of estab- lish- ments	Wage earn- ers (average number)	Wages	Cost of materials	Value of products	Value added by manu- facture	Horse- power
Expressed in thousands of dollars								
Metal-working machinery (including machinetools).	1925	378	36,825	55,932	54,524	175,592	121,068	147,418
	1923	350	33,373	47,337	40,977	137,206	96,229	109,196
	1921	348	21,307	25,252	23,978	67,729	43,751	(1)
	1919	403	53,111	66,179	59,034	212,400	153,366	100,294
Pumps (hand and power) and pumping equipment.	1925	253	17,935	25,278	50,328	120,148	69,820	56,470
	1923	229	14,550	19,991	34,465	92,930	58,465	38,286
	1921	221	12,186	13,969	26,804	69,962	43,158	(1)
	1919	239	16,072	19,732	36,069	85,401	49,332	32,441
Scales and balances -----	1925	71	4,292	5,783	7,349	27,237	19,888	9,771
	1923	65	4,245	5,500	6,595	24,157	17,562	9,615
	1921	65	3,720	4,423	4,716	15,885	11,169	(1)
	1919	79	5,432	6,534	6,994	20,641	13,647	7,441
Sewing machines, cases, and attachments.	1925	41	12,121	16,100	18,610	46,299	27,689	27,439
	1923	40	13,435	17,605	17,763	45,967	28,204	22,511
	1921	36	12,569	12,523	14,937	35,608	20,671	(1)
	1919	45	19,230	24,494	24,402	57,938	33,536	32,017
Textile machinery and parts.	1925	379	27,869	37,464	39,037	121,653	82,616	61,738
	1923	428	35,672	46,023	49,705	140,661	90,956	56,295
	1921	421	31,025	38,851	44,904	128,935	84,031	(1)
	1919	432	31,823	36,529	45,636	122,089	76,453	41,744
Typewriters and supplies.	1925	70	14,969	18,803	15,157	63,080	47,923	15,568
	1923	73	14,963	18,210	13,977	52,498	38,521	11,451
	1921	75	13,381	14,398	10,770	41,790	31,020	(1)
	1919	88	15,659	17,009	16,144	52,738	36,594	13,054
Washing machines, clothes wringers, driers, and ironing machines, for domestic use.	1925	82	7,077	9,990	32,748	69,568	36,820	18,028
	1923	85	6,144	7,839	25,742	50,373	24,631	11,415
	1921	96	4,147	4,898	16,622	30,199	13,577	(1)
	1919	105	5,956	6,431	23,389	40,771	17,382	8,816
Windmills and windmill towers.	1925	15	1,391	1,830	3,376	7,984	4,608	3,378
	1923	16	1,101	1,431	2,592	6,311	3,719	2,732
	1921	24	1,383	1,531	3,460	6,530	3,070	(1)
	1919	31	1,932	2,145	4,960	9,932	4,972	4,686

<sup>1</sup> Not called for on schedule.<sup>2</sup> No comparable data.<sup>3</sup> Figures for 1923 not strictly comparable with those for 1925 because of changes in classification.

## AGRICULTURAL IMPLEMENTS; FARM EQUIPMENT

### INTRODUCTION

The statistics in this section are shown under two heads, namely, "Agricultural implements" (pp. 984-987) and "Farm equipment" (pp. 988-1000). The former refers to the manufacturing industry classified by the Census Bureau under that designation, which embraces only those establishments whose principal products fall into certain specified classes. (See "Description of the industry," p. 984.) The total value of products shown for this industry includes the value of various minor or secondary products other than agricultural implements, but does not include the value of agricultural implements made by establishments engaged primarily in the manufacture of other classes of products. (See "Classification by industries," p. 6.)

The farm-equipment statistics, however, cover not only the machines and implements which constitute the principal products of establishments in the agricultural-implements industry, but also the output of the same classes of machines and implements made as secondary products by establishments engaged primarily in other industries. They also cover certain classes of machinery, implements, tools, etc., not treated by the Census Bureau as products of the agricultural-implements industry, namely, tractors and traction engines, horse-drawn vehicles, and some of the items in the "barn and barnyard equipment" and "miscellaneous" groups (Tables 12 and 13, p. 998).

Thus the products of the agricultural-implements industry fall into two broad classes, namely, (1) machines and implements used exclusively or almost exclusively on the farm (not including farm tractors and some of the products in the "barn and barnyard equipment" and "miscellaneous" groups) and (2) a minor and relatively unimportant group of miscellaneous commodities made as secondary products and intended for use mainly elsewhere than on the farm; whereas "farm equipment," as the term is used in this report, comprises Group 1 of the products reported for the agricultural-implements industry (together with similar products made outside the industry), and in addition farm tractors, some of the "barn and barnyard equipment" and "miscellaneous" products, and certain classes of equipment used both on the farm and elsewhere—for example, horse-drawn vehicles, water pumps, and windmills. (See "Inclusion of equipment for use elsewhere than on farms," p. 988.)

Summary and general statistics only are given for the agricultural-implements industry. The statistics for farm equipment, on the other hand, relate only to the numbers and values of specified classes and kinds of products and the numbers of establishments reporting them (either as major or as minor products).

## AGRICULTURAL IMPLEMENTS

**Description of the industry.**—This industry embraces those establishments, and those only, which were engaged primarily in the manufacture of products falling into the following classes: (1) Plows and listers; (2) harrows, land rollers, and pulverizers; (3) planting machinery; (4) cultivators and weeder; (5) harvesting machinery; (6) haying machinery; (7) machines for preparing crops for market or use; (8) miscellaneous agricultural implements, such as cane mills, fertilizer distributors, lime spreaders, manure spreaders, straw spreaders, seed-potato cutters, stalk cutters, equalizers, hay carriers (forks and slings), tracks for hay carriers, etc. No detailed statistics of products are given for this industry separately, but the numbers and values of the machines and implements of classes 1 to 7, including those reported as minor products by establishments classified in other industries, are presented in Tables 3-9, 993-996, and the production of agricultural implements of class 8, as reported by establishments in all industries, together with that of numerous other items of farm equipment not treated as products of the agricultural-implements industry, is shown in Tables 10-13, pp. 997-999.

The total value of products of the agricultural-implements industry differs from the sum of the values of the machines and implements of classes 1 to 8, as given in the first 7 and the last items in Table 1 of the farm equipment report (p. 989), because the former amount includes the values of commodities other than agricultural implements, made as secondary products by establishments classified in the agricultural-implements industry, but does not include the values of agricultural implements made as secondary products by establishments classified in other industries.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925.....	303	28,696	\$37,387,620	\$85,469	\$73,850,060	\$169,467,966	\$95,617,906	115,325
1923.....	312	30,962	40,510,534	56,085	63,491,886	151,286,248	87,794,362	121,975
1921.....	353	30,359	39,835,414	110,594	87,267,274	163,816,679	76,549,405	( <sup>3</sup> )
1919.....	521	54,368	66,704,434	113,421	144,571,943	304,961,265	160,389,322	128,249
1914.....	601	48,459	34,593,325	104,488	73,508,645	164,086,835	90,578,190	121,256
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925.....	-2.9	-7.3	-7.7	52.4	16.3	12.0	8.9	-5.5
1921-1923.....	-11.6	2.0	1.7	-49.3	-27.2	-7.6	14.7	-----
1921-1925.....	-14.2	-5.5	-6.1	-22.7	-15.4	3.4	24.9	-----
1914-1925.....	-49.6	-40.8	8.1	-18.2	.5	3.3	5.6	-4.9

<sup>1</sup> Including also cost of fuel, electric power, and mill supplies.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> These figures differ slightly from the corresponding ones published in the report for 1914 because of the exclusion here and the inclusion in the previous report of data for rented power other than electric.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 4, p. 986]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	28,696	28,636	30,038	30,778	30,426	29,406	28,459
1923 <sup>1</sup> .....	30,962	31,683	34,480	35,776	35,411	33,657	32,290
1921 <sup>1</sup> .....	30,359	46,890	43,222	40,966	36,743	29,376	32,303
1919 <sup>1</sup> .....	54,368	57,926	58,748	58,653	55,771	53,994	52,817
California.....	452	542	588	643	624	560	501
Georgia.....	572	745	720	653	583	485	381
Illinois.....	13,405	13,627	14,292	14,373	14,235	14,141	13,908
Indiana.....	3,530	3,209	3,433	3,671	3,585	3,241	3,038
Iowa.....	545	540	553	607	656	675	521
Kansas.....	83	67	72	83	76	88	90
Maine.....	109	113	114	126	122	117	82
Michigan.....	539	477	518	535	576	607	585
Minnesota.....	820	704	810	916	1,001	1,019	1,058
Missouri.....	33	10	15	19	53	56	70
Nebraska.....	74	61	63	69	81	69	64
New Jersey.....	5	4	6	6	14	4	4
New York.....	2,042	2,115	2,211	2,229	2,109	2,018	1,953
North Carolina.....	201	210	214	220	214	200	190
Ohio.....	2,069	1,955	2,058	2,243	2,272	2,043	1,987
Pennsylvania.....	875	909	895	902	884	884	909
Tennessee.....	376	378	379	398	381	375	370
Vermont.....	83	84	90	86	86	83	83
Virginia.....	146	150	149	155	157	149	140
Washington.....	33	15	19	21	30	34	51
Wisconsin.....	1,861	1,777	1,904	1,943	1,871	1,809	1,796

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <sup>1</sup> .....	<i>28,520</i>	26,903	27,029	27,484	28,777	29,882
1923 <sup>1</sup> .....	29,929	28,956	28,099	25,197	27,008	29,029
1921 <sup>1</sup> .....	18,070	16,857	15,580	29,346	33,135	31,815
1919 <sup>1</sup> .....	52,900	<i>49,483</i>	51,256	51,059	52,610	56,199
California.....	462	367	312	285	279	256
Georgia.....	417	448	492	567	677	700
Illinois.....	11,955	12,325	12,785	12,907	13,074	13,243
Indiana.....	3,172	3,694	3,328	3,742	4,048	4,205
Iowa.....	565	606	448	477	390	502
Kansas.....	100	106	76	75	78	82
Maine.....	103	114	110	100	98	112
Michigan.....	615	581	457	431	509	580
Minnesota.....	1,058	977	881	490	452	469
Missouri.....	63	37	30	21	15	13
Nebraska.....	56	64	70	82	97	108
New Jersey.....	4	3	4	4	4	4
New York.....	1,889	1,528	1,839	2,075	2,199	2,338
North Carolina.....	179	182	196	197	199	216
Ohio.....	1,895	1,882	1,978	2,046	2,179	2,287
Pennsylvania.....	909	892	831	825	838	824
Tennessee.....	354	330	428	342	394	384
Vermont.....	76	76	82	82	80	84
Virginia.....	137	138	134	140	150	149
Washington.....	66	39	37	28	26	26
Wisconsin.....	1,737	1,726	1,673	1,705	2,054	2,343

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by italic figures. Per cent which minimum forms of maximum: 1925, 86.2; 1923, 70.4; 1921, 34.0; 1919, 82.8.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Number	Capacity	Number	Capacity	Number	Capacity
Prime movers, total.....	5, 146	Horse-power 115, 325	4, 846	Horse-power 121, 975	5, 168	Horse-power 128, 249
Steam engines.....	191	40, 188	251	62, 931	334	69, 942
Steam turbines.....	31	17, 441				
Internal-combustion engines.....	46	1, 014	47	1, 188	166	4, 092
Water turbines <sup>1</sup> .....	38	3, 823	37	3, 882	74	6, 373
Electric motors driven by purchased current.....	4, 840	52, 854	4, 511	53, 974	4, 594	47, 842
Electric motors, total.....	7, 583	96, 242	6, 998	99, 339	7, 993	100, 263
Driven by purchased current.....	4, 840	52, 854	4, 511	53, 974	4, 594	47, 842
Driven by current generated in establishment reporting.....	2, 743	43, 388	2, 487	45, 365	3, 399	52, 421
Electric generators.....	110	Kilo-watts 28, 027	(?)	Kilo-watts (?)	(?)	Kilo-watts (?)

<sup>1</sup> Includes data for a small number of water motors for 1919.<sup>2</sup> Not called for on schedule.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	303	34, 158	78	15, 384	28, 696	115, 325
California.....	18	596	3	141	452	1, 219
Georgia.....	6	611	-----	39	572	1, 043
Illinois.....	46	15, 525	8	2, 112	13, 405	60, 514
Indiana.....	19	4, 097	3	564	3, 530	10, 778
Iowa.....	22	682	10	127	545	2, 184
Kansas.....	10	108	4	21	83	262
Maine.....	4	119	-----	10	109	448
Michigan.....	8	845	-----	306	539	1, 887
Minnesota.....	18	1, 031	6	205	820	2, 755
Missouri.....	5	50	1	16	33	243
Nebraska.....	5	99	4	21	74	209
New Jersey.....	3	10	4	1	5	35
New York.....	20	2, 370	3	325	2, 042	7, 741
North Carolina.....	12	231	7	23	201	429
Ohio.....	29	2, 470	8	393	2, 069	7, 785
Pennsylvania.....	13	1, 103	-----	228	875	3, 224
Tennessee.....	6	433	1	56	376	1, 382
Vermont.....	5	95	1	11	83	496
Virginia.....	9	184	2	36	146	512
Washington.....	6	52	4	15	33	117
Wisconsin.....	21	2, 258	3	394	1, 861	8, 449
All other States <sup>2</sup> .....	18	1, 189	6	340	843	3, 063

TABLE 4.—GENERAL STATISTICS, BY STATES: 1925—Continued

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>3</sup>
United States.....	\$10,962,939	\$37,387,620	\$85,469	\$73,850,060	\$169,467,966	\$95,617,906
California.....	216,312	679,140	2,814	1,109,933	2,924,955	1,815,022
Georgia.....	92,252	303,029	-----	911,307	1,630,552	719,245
Illinois.....	4,405,072	18,443,575	14,508	38,193,139	86,077,484	47,884,345
Indiana.....	1,225,506	4,695,587	33,524	6,834,346	17,239,997	10,405,651
Iowa.....	332,173	654,819	-----	2,129,762	4,861,816	2,782,054
Kansas.....	40,628	72,431	13,675	288,273	663,626	375,353
Maine.....	22,265	165,372	-----	137,093	365,520	228,427
Michigan.....	676,392	739,863	-----	1,870,516	4,073,326	2,202,810
Minnesota.....	349,229	1,017,421	3,534	2,718,331	5,358,498	2,640,167
Missouri.....	24,907	31,943	-----	115,719	233,888	118,169
Nebraska.....	34,217	81,260	-----	300,025	586,231	286,206
New Jersey.....	1,550	7,436	-----	19,414	36,639	17,225
New York.....	721,687	2,477,718	10,761	4,408,565	9,150,073	4,741,508
North Carolina.....	77,389	220,668	1,000	334,886	903,999	569,113
Ohio.....	811,382	2,616,073	573	4,448,780	10,270,671	5,821,891
Pennsylvania.....	497,389	1,057,632	2,160	1,630,964	3,882,458	2,251,494
Tennessee.....	117,045	369,281	-----	637,643	1,130,308	492,665
Vermont.....	29,391	92,556	-----	110,094	229,742	119,648
Virginia.....	80,687	161,665	-----	234,368	642,600	408,232
Washington.....	26,931	41,051	-----	126,974	235,103	108,129
Wisconsin.....	805,935	2,616,157	2,920	5,183,604	14,782,355	9,598,751
All other States <sup>2</sup> .....	374,600	842,943	-----	2,106,324	4,188,125	2,081,801

<sup>1</sup> Not including 382 salaried officers and employees of central administrative offices, with salaries aggregating \$1,104,281. For purposes of comparison with the statistics published for earlier years these figures should be added to those given in the table, making combined totals of 5,766 salaried officers and employees and \$12,067,220. (See Central-administrative-office employees," p. 1183.)

<sup>2</sup> Alabama, 1 establishment; Connecticut, 2; Colorado, 2; Florida, 1; Kentucky, 5; Louisiana, 1; Massachusetts, 1; New Hampshire, 1; South Carolina, 1; South Dakota, 1; Texas, 1; West Virginia, 1.

<sup>3</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

## FARM EQUIPMENT—MANUFACTURE AND SALE

(See Introduction on p. 983)

This special report is the sixth of an annual series which began with Department Circular 212, covering the year 1920, prepared and published by the Bureau of Public Roads, Department of Agriculture. The reports for subsequent years have been compiled and issued by the Bureau of the Census.

A preliminary report for 1925 was released to the press under date of August 9, 1926. Some minor changes in the figures have since been made, following the final analysis of the returns.

**Inclusion of equipment for use elsewhere than on farms.**—In the cases of certain classes of products, such as horse-drawn vehicles, water pumps, windmills, etc., the greater part, but not all, of the output is sold to agriculturists. It is impossible, however, to separate the proportion for sale to agriculturists from that for sale to other consumers, and therefore the statistics for these classes of equipment overstate somewhat the production destined for farm use. Automobiles and motor trucks have not been included in the canvass for the reason that, although the proportions of these machines sold to farmers are large, they are not large enough to justify treating the entire output as farm equipment (it being impossible, as in the case of horse-drawn vehicles, etc., to separate the proportion for sale to farmers from that for sale to other consumers).

**Sales statistics.**—The total value of domestic and foreign sales differs more or less from the total value of the year's production, for the reason that a part of the production reported for any one year was not sold until the following year. In 1925 and 1924 the total sales (domestic and foreign combined) exceeded the production by 3.5 and 2 per cent, respectively. In 1923, however, the production was nearly 1 per cent greater than the total sales. For all groups combined, and for 8 of the 11 groups separately the sales for export were greater in 1925 than in either 1924 or 1923.

**Increase in production.**—The total value of farm equipment manufactured in 1925 shows an increase of 21.4 per cent over the 1924 production and of 7.6 per cent over the 1923 production. Increases are shown for 1925 for 9 of the 11 groups, the exceptions being harvesting machinery and haying machinery, which show decreases of 4.6 per cent and 2 per cent, respectively, from 1924. A truer indication of the increases and decreases in output is afforded by the numbers shown in Table 2. It will be seen that most of the items listed show, for 1925, a substantial increase over the output in 1924.

TABLE 1.—FARM EQUIPMENT MANUFACTURED AND SOLD—VALUE, BY CLASSES:  
1925, 1924, AND 1923

[In making use of these sales statistics, it must be remembered that they refer only to sales by manufacturers and do not, therefore, cover sales by dealers to consumers]

CLASS	Year	Number of establishments	Manufactured	SOLD BY MANUFACTURERS—	
				In United States	For export
Total .....	1925	1,011	\$392,457,228	\$340,880,020	\$65,359,796
	1924	949	323,367,127	277,924,547	51,988,372
	1923	1,135	364,854,106	311,976,047	49,349,294
Plows and listers (Table 3) .....	1925	111	23,936,803	20,002,022	7,308,590
	1924	101	21,030,409	17,650,736	5,581,443
	1923	115	24,252,181	20,086,339	4,672,563
Harrows, rollers, and pulverizers (Table 4) .....	1925	96	9,870,184	9,797,765	1,335,207
	1924	100	9,451,857	8,308,500	1,003,468
	1923	111	11,396,858	10,340,782	714,571
Planting machinery (Table 5) .....	1925	98	13,709,184	12,228,095	2,600,285
	1924	89	9,699,088	8,658,610	1,536,153
	1923	103	9,587,825	9,250,752	855,321
Cultivators and weeders (Table 6) .....	1925	119	17,670,894	17,233,894	1,098,445
	1924	100	14,805,993	13,576,752	690,296
	1923	119	13,433,162	13,179,665	512,791
Harvesting machinery (Table 7) .....	1925	77	28,386,628	23,467,903	9,200,813
	1924	59	29,751,849	14,848,841	12,768,724
	1923	81	26,278,076	17,032,767	10,792,116
Haying machinery (Table 8) .....	1925	47	15,457,022	12,246,907	3,319,667
	1924	46	15,767,166	12,158,370	3,000,031
	1923	44	15,503,296	14,017,712	2,085,441
Machines for preparing crops for market or use (Table 9) .....	1925	174	27,917,902	27,185,878	4,039,041
	1924	176	23,681,790	19,533,000	2,834,092
	1923	181	30,761,122	22,918,124	5,838,104
Tractors and traction engines (Table 10) .....	1925	64	121,302,345	93,025,850	27,742,448
	1924	62	83,052,947	74,538,731	16,810,311
	1923	78	93,782,550	77,418,955	14,681,512
Horse-drawn vehicles (Table 11) .....	1925	149	17,487,982	17,457,040	245,718
	1924	140	15,537,435	15,407,857	135,128
	1923	211	24,553,169	23,156,780	1,040,636
Barn and barnyard equipment (Table 12) .....	1925	144	8,969,737	8,889,299	122,293
	1924	114	6,439,576	6,368,704	69,779
	1923	134	9,910,297	9,635,790	100,199
Miscellaneous (Table 13) .....	1925	2	107,748,547	99,345,367	8,347,289
	1924	1	94,149,017	86,874,446	7,558,947
	1923	1	105,395,570	94,938,381	8,055,740

<sup>1</sup> Correction made after publication of 1924 report.<sup>2</sup> Includes the value of miscellaneous repair parts amounting to \$2,686,268.



## CENSUS OF MANUFACTURES: 1925

TABLE 2.—FARM EQUIPMENT MANUFACTURED—NUMBER AND VALUE OF MACHINES AND IMPLEMENTS, BY KINDS: 1925, 1924, AND 1923

[This table covers only those items of farm equipment in regard to which comparable figures can be shown for either 1924 or 1923. Production and sales statistics for 1925 for all items are given in Tables 3-13]

KIND	NUMBER			VALUE		
	1925	1924	1923	1925	1924	1923
Plows and listers:						
Moldboard plows—						
Horse—						
Walking, 1-horse.....	227, 218	201, 422	217, 384	\$1, 281, 810	\$1, 228, 284	\$1, 379, 983
Walking, 2-horse and larger...	182, 306	219, 579	285, 083	2, 321, 960	2, 692, 486	3, 093, 804
Sulky—						
1-bottom.....	17, 331	20, 901	26, 528	964, 061	1, 178, 290	1, 120, 692
2-bottom.....	28, 344	21, 171	31, 823	2, 942, 896	2, 071, 303	2, 185, 469
3-bottom and larger.....	1, 118	1, 001	1, 596	135, 343	132, 818	126, 366
Tractor—						
1-bottom.....	4, 510	3, 842	4, 498	288, 855	266, 276	305, 530
2-bottom.....	48, 966	32, 124	55, 479	3, 163, 959	2, 196, 472	3, 112, 463
3-bottom.....	3, 749	1, 950	4, 704	312, 858	196, 942	346, 546
4-bottom and larger <sup>1</sup> .....	907	501	468	102, 794	91, 541	62, 769
Two-way—						
Walking.....	24, 096	33, 386	36, 359	325, 989	462, 877	410, 808
Sulky.....	2, 848	1, 719	4, 204	209, 592	137, 701	220, 588
Disk plows—						
Horse—						
Single-disk.....	2, 001	1, 675	3, 878	99, 875	102, 649	171, 387
2-disk.....	5, 714	3, 255	4, 209	435, 115	250, 857	254, 792
3-disk and larger.....	1, 484	947	1, 051	150, 881	107, 269	74, 199
Tractor—						
2-disk.....	7, 621	5, 274	7, 156	602, 611	468, 876	591, 337
3-disk.....	1, 750	984	1, 835	206, 513	107, 890	180, 666
4-disk.....	528	330	494	66, 931	53, 426	72, 490
5-disk and larger.....	1, 326	409	676	207, 111	101, 211	121, 309
Listers (middle busters)—						
Horse—						
1-bottom.....	30, 536	31, 413	34, 576	747, 807	842, 955	878, 682
2-bottom.....	6, 355	7, 070	7, 323	591, 130	553, 633	458, 873
Tractor—						
2-bottom.....	1, 243	2, 337	852	118, 034	211, 942	66, 738
3-bottom.....	692	210	238	67, 415	21, 955	20, 041
Plowstocks.....				329, 981	247, 450	205, 720
Harrows, rollers, and pulverizers:						
Harrows—						
1-horse (spike-tooth and spring-tooth).....	20, 545	17, 366	35, 540	102, 194	153, 671	287, 288
Spike-tooth harrow sections.....	176, 951	180, 573	194, 570	1, 431, 405	1, 429, 298	1, 223, 334
Spring-tooth harrow sections.....	109, 464	87, 830	120, 462	999, 512	1, 013, 743	1, 489, 534
Disk harrows, horse.....	66, 628	57, 618	91, 224	2, 815, 246	2, 489, 058	3, 230, 183
Disk harrows, tractor.....	29, 086	28, 081	35, 415	2, 319, 413	2, 140, 809	2, 363, 809
Smooth land rollers.....	1, 776	1, 137	1, 981	57, 789	37, 239	63, 264
Soil pulverizers and packers.....	6, 757	9, 046	11, 873	351, 884	505, 958	566, 104
Planting machinery:						
Corn planters—						
Hand.....	29, 486	23, 710	43, 271	34, 783	37, 473	83, 647
Horse—						
1-row.....	18, 657	20, 936	21, 682	324, 575	357, 505	324, 889
2-row.....	41, 173	37, 907	41, 324	2, 392, 995	2, 135, 154	2, 116, 919
Cotton planters, 1-row.....	32, 139	24, 536	20, 825	310, 548	196, 012	159, 326
Combination corn and cotton planters—						
1-row.....	52, 140	50, 919	34, 791	1, 330, 668	1, 338, 327	711, 006
2-row.....	10, 787	5, 830	8, 953	719, 002	407, 627	406, 298
Combined listers and drills.....	20, 203	17, 308	4, 463	1, 389, 984	1, 089, 241	238, 364
Potato planters, horse.....	3, 539	4, 058	5, 760	237, 615	286, 318	363, 659
Grain drills—						
Horse.....	31, 777	15, 288	29, 425	3, 460, 952	1, 497, 556	2, 822, 758
Tractor.....	805	291	1, 147	106, 155	34, 775	112, 489
Transplanters, horse.....	2, 604	3, 491	3, 139	172, 557	227, 513	176, 347
Broadcast seeders—						
Wheel, horse.....	4, 434	4, 213	3, 785	236, 209	179, 711	160, 921
End-gate.....	10, 427	12, 190	10, 333	157, 125	191, 111	150, 541
Hand (wheelbarrow and other).....	63, 691	59, 077	64, 320	90, 315	203, 247	254, 129

See footnotes at end of table

TABLE 2.—FARM EQUIPMENT MANUFACTURED—NUMBER AND VALUE OF MACHINES AND IMPLEMENTS, BY KINDS: 1925, 1924, AND 1923—Continued

[See note at head of this table]

KIND	NUMBER			VALUE		
	1925	1924	1923	1925	1924	1923
Cultivators and weeders:						
Cultivators—						
Horse, straddle-row—						
1-row, walking.....	51,975	71,904	54,142	\$1,555,041	\$1,717,501	\$1,274,347
1-row, riding.....	122,292	118,036	137,368	5,144,689	5,211,870	4,737,840
2-row.....	50,471	46,921	27,844	4,107,374	3,782,164	1,727,676
1-horse.....	155,539	129,372	154,786	822,066	719,728	822,054
Beet cultivators.....	5,086	1,977	1,271	247,997	99,691	51,024
Hand cultivators (wheeled hoes).....	125,048	115,685	141,082	397,191	358,825	424,237
Weeders.....	12,273	9,938	6,698	192,948	124,819	86,598
Harvesting machinery:						
Grain binders.....	42,405	55,731	62,764	6,649,786	9,296,584	8,611,182
Grain headers.....	2,857	5,693	3,621	664,582	1,552,454	831,893
Combined harvesters and threshers.....	5,131	5,828	4,012	7,284,429	6,638,931	4,909,961
Corn binders.....	20,829	17,267	15,719	2,933,319	2,487,762	2,064,262
Potato-digging machines, elevator type.....	4,594	7,438	10,009	352,219	607,947	759,755
Potato diggers, plow type.....	2,027	2,840	2,525	46,765	64,233	36,268
Pea and bean harvesters.....	5,712	3,591	2,126	232,303	176,488	98,377
Beet lifters.....	1,516	1,380	458	67,518	86,751	18,580
Haying machinery:						
Mowers.....	112,299	126,448	130,374	6,041,832	7,386,045	6,575,728
Rakes, sulky (dump).....	61,050	52,479	46,392	1,805,246	1,604,350	1,188,899
Rakes, side-delivery.....	15,474	11,217	18,244	1,143,538	854,027	1,164,121
Rakes, sweep.....	11,092	13,846	16,011	415,474	512,390	529,468
Teddars.....	2,046	1,627	1,499	143,232	82,006	64,004
Loaders.....	15,746	13,484	23,340	1,243,034	1,133,004	1,801,755
Stackers.....	3,716	4,841	3,651	360,726	472,110	278,128
Machines for preparing crops for market or use:						
Grain threshers, wood—						
Width of rear 46 inches and under.....	919	1,258	3,426	561,958	927,120	3,046,735
Width of rear 47 inches and over.....	262	484	1,875	355,991	759,946	2,329,903
Grain threshers, steel—						
Width of rear 46 inches and under.....	10,486	6,487	6,333	9,613,190	4,891,868	4,475,848
Width of rear 47 inches and over.....	1,898	1,558	1,677	2,866,329	2,312,331	2,327,553
Pea and bean threshers.....	752	674	256	461,430	313,322	209,790
Peanut threshers (pickers).....	606	468	390	292,371	217,240	178,700
Ensilage cutters (silo fillers).....	8,771	10,582	12,846	1,973,524	2,063,219	2,074,638
Fodder cutters.....	5,841	3,626	12,846	168,794	101,968	327,206
Corn shellers, hand.....	39,352	33,551	39,559	301,307	312,651	327,206
Corn shellers, power—						
Spring (2, 4, 6, and 8 hole).....	2,691	3,467	4,466	345,312	453,289	540,431
Cylinder.....	1,343	1,949	1,746	540,533	617,417	609,975
Corn huskers and shredders.....	2,225	3,600	3,231	1,219,023	1,635,734	1,448,070
Hay presses—						
Horse.....	1,448	1,497	2,446	294,544	290,421	443,170
Engine.....	1,744	1,814	3,010	813,637	800,861	1,260,570
Feed grinders and crushers—						
Hand.....	64,768	53,715	46,418	191,677	181,623	148,149
Power.....	33,283	39,492	53,007	1,373,444	1,433,425	1,696,255
Grain cleaners and graders (for small grain only).....	17,329	8,899	7,145	944,323	456,797	375,882
Farm tractors and traction engines:						
Farm tractors, internal-combustion—						
Wheeled type.....	158,037	112,226	126,906	82,892,374	54,225,935	61,696,376
Tracklaying type.....	6,060	4,612	5,002	17,441,015	13,932,355	13,648,798
Farm traction engines, steam.....	97	283	620	251,971	712,535	1,893,280
Horse-drawn vehicles:						
Farm wagons—						
1-horse.....	15,115	14,360	147,039	821,560	778,183	13,865,112
2-horse.....	93,362	70,492		9,403,263	7,353,511	
Farm trucks—						
With wood wheels.....	34,955	21,244	28,037	1,837,064	1,136,039	1,425,705
With metal wheels.....	28,222	16,986	17,386	1,039,337	781,434	627,896
Buggies.....	20,486	26,695	55,913	1,871,727	2,269,041	4,474,990
Barn and barnyard equipment:						
Overhead feed and litter carriers (box and gearing only).....	10,068	8,503	9,998	398,991	366,920	455,097
Hay carriers.....	46,479	42,447	66,518	411,379	365,489	522,680
Track for carriers, feet.....	2,461,108	2,326,101	3,051,868	444,636	418,183	419,951
Hayforks (harpoon, grapple, etc.).....	58,393	43,737	62,965	135,313	124,764	191,612
Hay slings.....	49,112	44,475	49,613	116,567	153,208	165,955
Stanchions.....	388,414	265,704	297,996	1,237,656	738,525	984,840
Manger partitions and fittings.....	36,580	20,819	19,711	99,715	57,725	52,752

See footnotes at end of table

# CENSUS OF MANUFACTURES: 1925

**TABLE 2.—FARM EQUIPMENT MANUFACTURED—NUMBER AND VALUE OF MACHINES AND IMPLEMENTS, BY KINDS: 1925, 1924, AND 1923—Continued**

[See note at head of this table]

KIND	NUMBER			VALUE		
	1925	1924	1923	1925	1924	1923
Barn and barnyard equipment—Contd.						
Stalls and fittings (not including stanchions, etc.)	161, 637	126, 237	134, 454	\$952, 105	\$931, 552	\$904, 774
Hog troughs	126, 429	260, 786	431, 484	109, 407	176, 938	375, 743
Stock tanks and waterers	185, 713	123, 964	271, 894	2, 027, 901	1, 311, 561	2, 312, 967
Miscellaneous:						
Beekeepers' supplies				2, 275, 030	1, 636, 256	1, 898, 715
Cider mills	15, 943	18, 663	28, 691	273, 464	267, 957	467, 166
Dairy machinery—						
Milking-machine units	15, 004	12, 274	11, 243	1, 117, 762	1, 013, 112	940, 753
Cream separators—						
Hand	168, 857	143, 161	160, 614	7, 226, 183	6, 008, 946	7, 309, 825
Power	1, 648	816	1, 555	612, 717	132, 514	416, 722
Farm elevators—						
Portable	5, 339	4, 181	6, 473	1, 170, 659	905, 246	1, 364, 454
Stationary	1, 145	1, 054	1, 224	325, 123	326, 064	435, 189
Fertilizer distributors, horse	68, 058	50, 730	35, 398	584, 572	431, 878	592, 714
Forks, hoes, rakes, shovels, etc.	17, 228, 100	16, 451, 889	19, 696, 388	13, 070, 370	12, 507, 758	14, 417, 379
Internal-combustion engines for farm use	182, 415	120, 458	163, 910	12, 383, 609	9, 463, 230	12, 816, 636
Lawn mowers—						
Hand	876, 316	884, 908	( <sup>3</sup> )	6, 574, 680	7, 208, 017	( <sup>3</sup> )
Power	7, 230	4, 940	( <sup>3</sup> )	1, 394, 085	1, 388, 151	( <sup>3</sup> )
Lightning rod, feet	7, 906, 862	5, 951, 865	6, 468, 809	853, 809	777, 262	895, 805
Lime spreaders	6, 589	<sup>2</sup> 3, 111	3, 320	267, 212	<sup>2</sup> 123, 582	143, 231
Manure spreaders	53, 839	<sup>2</sup> 35, 842	36, 548	6, 328, 818	<sup>2</sup> 4, 354, 968	3, 830, 392
Portable cornercibs	5, 968	1, 812	2, 134	447, 420	200, 160	252, 225
Poultry-farm equipment—						
Incubators <sup>4</sup>	161, 360	206, 796	256, 166	5, 913, 274	4, 804, 974	5, 928, 039
Brooders <sup>4</sup>	135, 578	149, 669	217, 365	1, 657, 100	1, 517, 352	2, 105, 557
Water pumps—						
Hand	706, 201	593, 619	685, 004	2, 710, 576	2, 800, 910	3, 151, 549
Windmill	192, 331	135, 860	273, 079	1, 579, 593	1, 187, 874	2, 509, 100
Water-supply systems (house)	103, 777	58, 390	21, 797	9, 818, 090	6, 827, 292	2, 657, 920
Pump jacks	58, 129	41, 882	54, 089	487, 229	371, 137	459, 407
Pushcarts and hand trucks	44, 109	30, 300	10, 568	387, 947	190, 404	182, 133
Silos	5, 779	7, 352	7, 755	2, 129, 376	2, 761, 299	2, 993, 108
Spraying outfits, complete—						
Power (not including engine)	9, 926	<sup>2</sup> 8, 959	12, 045	1, 881, 520	<sup>2</sup> 1, 907, 988	2, 599, 172
Hand (with tank, barrel, knapsack, etc.)	247, 764	144, 029	191, 572	1, 410, 753	1, 112, 767	1, 441, 188
Spray pumps (not included above)—						
Power	3, 840	<sup>2</sup> 3, 234	11, 840	261, 963	<sup>2</sup> 270, 274	251, 923
Hand (not including small spray guns)	82, 294	78, 600	101, 926	342, 383	361, 202	548, 800
Scrapers	33, 102	34, 614	12, 835	324, 557	422, 241	113, 546
Stalk cutters	6, 934	5, 920	2, 525	308, 840	264, 925	134, 941
Stump pullers (hand and power)	1, 434	1, 360	1, 953	221, 988	200, 815	261, 629
Trucks, tongue	19, 134	37, 669	33, 126	178, 235	552, 193	329, 675
Wheelbarrows—						
Wooden	126, 413	77, 903		565, 209	358, 507	
Tubular (steel)	29, 984	18, 381	112, 089	156, 940	111, 107	597, 497
Windmills	100, 439	77, 393	76, 335	4, 052, 755	3, 371, 131	3, 184, 787
Windmill towers	55, 068	43, 184	43, 003	1, 629, 642	1, 240, 180	1, 450, 775
Wood-sawing machines—						
Circular	24, 769	15, 630	19, 099	413, 842	380, 479	390, 298
Drag	2, 510	3, 539	3, 591	148, 478	240, 588	288, 038

<sup>1</sup> Data for 4-bottom and 5-bottom tractor moldboard plows combined to avoid disclosure.

<sup>2</sup> Change made since original publication.

<sup>3</sup> No data.

<sup>4</sup> The average value of incubators and brooders is greater for 1925 than for previous years. This is due to an increase in the number of the larger sizes.

TABLE 3.—PLOWES AND LISTERS MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
				In United States		For export	
		Number	Value	Number	Value	Number	Value
Total.....	111	-----	\$23, 936, 803	-----	\$20, 002, 022	-----	\$7, 308, 590
Plows and listers:							
Moldboard plows—							
Horse—							
Walking, 1-horse.....	50	227, 218	1, 281, 810	166, 179	875, 720	67, 842	479, 143
Walking, 2-horse and larger.....	65	182, 306	2, 321, 960	141, 661	1, 857, 965	68, 891	725, 674
Sulky—							
1-bottom.....	23	17, 331	964, 061	17, 443	919, 705	5, 554	321, 233
2-bottom.....	20	28, 344	2, 942, 896	17, 260	1, 721, 269	16, 102	1, 587, 373
3-bottom and larger.....	6	1, 118	135, 343	1, 481	180, 447	451	57, 306
Tractor—							
1-bottom.....	6	4, 510	288, 855	3, 462	230, 673	1, 021	78, 778
2-bottom.....	13	48, 966	3, 163, 959	43, 677	2, 880, 021	14, 188	1, 041, 211
3-bottom.....	11	3, 749	312, 858	6, 125	599, 282	1, 530	165, 976
4-bottom and larger.....	6	907	102, 794	645	97, 450	781	128, 797
Two-way—							
Walking.....	8	24, 096	325, 989	16, 373	237, 209	8, 720	113, 563
Sulky.....	7	2, 848	209, 592	3, 499	253, 642	-----	-----
Disk plows—							
Horse—							
Single-disk.....	9	2, 001	99, 875	878	48, 812	1, 175	57, 078
2-disk.....	10	5, 714	435, 115	4, 094	296, 612	2, 647	207, 414
3-disk and larger.....	7	1, 484	150, 881	789	70, 076	637	78, 403
Tractor—							
2-disk.....	12	7, 621	602, 611	7, 399	591, 251	1, 151	109, 941
3-disk.....	7	1, 750	206, 513	1, 488	171, 581	713	91, 112
4-disk.....	8	528	66, 931	536	65, 587	249	36, 588
5-disk and larger.....	12	1, 326	207, 111	1, 298	188, 007	140	44, 309
Listers (middle busters)—							
Horse—							
1-bottom.....	23	30, 536	747, 807	26, 931	672, 693	2, 322	39, 850
2-bottom.....	5	6, 355	591, 130	6, 371	552, 273	865	94, 490
Tractor—							
2-bottom.....	5	1, 243	118, 034	1, 752	134, 696	1	125
3-bottom.....	4	692	67, 415	988	90, 736	15	1, 352
Subsoilers.....	14	2, 575	90, 789	2, 168	69, 933	60	18, 966
Other plows and listers <sup>1</sup> .....	19	12, 075	119, 280	13, 021	131, 293	-----	-----
Plowstocks.....	12	-----	329, 981	-----	308, 625	-----	15, 136
Attachments and parts.....	72	-----	8, 053, 213	-----	6, 776, 404	-----	1, 814, 772

<sup>1</sup> Beet, cotton, and garden plows, combined ridgers and blockers, furrow openers, row markers, etc.

TABLE 4.—HARROWS, ROLLERS, AND PULVERIZERS MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
				In United States		For export	
		Number	Value	Number	Value	Number	Value
Total.....	96		\$9, 870, 184		\$9, 797, 765		\$1, 355, 207
Harrows:							
1-horse (spike-tooth and spring-tooth).....	15	20, 545	102, 194	20, 946	98, 154	642	3, 980
Spike-tooth harrow sections.....	43	176, 951	1, 431, 405	192, 249	1, 538, 965	15, 099	109, 518
Spring-tooth harrow sections.....	24	109, 464	999, 512	109, 768	997, 679	11, 254	123, 598
Disk harrows, horse.....	33	66, 628	2, 815, 246	62, 582	2, 544, 277	11, 004	557, 764
Disk harrows, tractor.....	23	29, 086	2, 319, 413	29, 781	2, 334, 295	4, 203	353, 414
Smooth land rollers.....	12	1, 776	57, 789	1, 764	57, 433		
Soil pulverizers and packers.....	18	6, 757	351, 884	10, 150	517, 500	462	26, 182
Other harrows, rollers, etc. <sup>1</sup> .....	21	6, 031	102, 629	6, 157	108, 574	43	3, 101
Attachments and parts.....	42		1, 690, 112		1, 600, 888		157, 650

<sup>1</sup> Combination harrows and rollers, and rotary, side, and coulter harrows, etc.

TABLE 5.—PLANTING MACHINERY MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
				In United States		For export	
		Number	Value	Number	Value	Number	Value
Total.....	98		\$13, 709, 184		\$12, 228, 095		\$2, 600, 285
Corn planters:							
Hand.....	7	29, 486	34, 783	23, 397	27, 863	556	594
1-row.....	18	18, 657	324, 575	17, 404	311, 753	2, 581	39, 000
2-row.....	19	41, 173	2, 392, 995	37, 623	2, 116, 654	5, 343	335, 185
Cotton planters, 1-row.....	18	32, 139	310, 548	30, 219	279, 797	13	50
Combination corn and cotton planters:							
1-row.....	15	52, 140	1, 330, 668	50, 559	1, 226, 768	4, 054	128, 204
2-row.....	10	10, 787	719, 002	8, 476	588, 920	2, 270	123, 374
Combined listers and drills:							
1-row.....	11	10, 729	576, 277	13, 133	709, 295	399	27, 047
2-row.....	8	9, 474	813, 707	9, 161	781, 702	441	38, 727
Potato planters, horse.....	15	3, 539	237, 615	3, 251	218, 922	162	10, 746
Grain drills, horse.....	18	31, 777	3, 460, 952	30, 790	3, 089, 554	9, 979	1, 282, 857
Grain drills, tractor.....	8	805	106, 155	740	82, 861	251	33, 992
Transplanters, horse.....	4	2, 604	172, 557	2, 280	148, 448	10	900
Broadcast seeders:							
Wheel, horse.....	9	4, 434	236, 209	2, 680	125, 620	2, 510	169, 886
End-gate.....	4	10, 427	157, 125	11, 556	172, 449	27	546
Hand (wheelbarrow and other).....	7	63, 691	90, 315	52, 438	64, 670	9, 811	16, 419
Beet drills, horse.....	4	1, 315	103, 348	1, 194	97, 055	77	5, 715
Other planters and drills <sup>1</sup> .....	22	26, 246	352, 063	20, 690	202, 600	5, 237	115, 066
Attachments and parts.....	52		2, 285, 290		1, 983, 164		271, 977

<sup>1</sup> Three-row corn planters, hand potato planters, hand transplanters, garden or hand drills, 2-row cotton planters, bean planters, beet drills, grass and alfalfa seeders, etc.

TABLE 6.—CULTIVATORS AND WEEDERS MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
				In United States		For export	
		Number	Value	Number	Value	Number	Value
Total.....	119	-----	\$17, 670, 894	-----	\$17, 233, 894	-----	\$1, 098, 445
Cultivators:							
Horse-drawn, except disk—							
1-horse.....	28	155, 539	822, 066	124, 672	635, 575	34, 082	224, 254
1-row, walking.....	28	51, 975	1, 555, 041	58, 088	1, 751, 684	856	28, 692
1-row, riding.....	36	122, 292	5, 144, 689	126, 112	5, 174, 917	9, 175	412, 586
2-row.....	31	50, 471	4, 107, 374	50, 853	4, 141, 735	548	35, 561
Tractor-drawn.....	7	1, 698	229, 504	1, 698	224, 887	8	2, 624
Disk cultivators.....	15	5, 680	262, 319	5, 469	256, 261	164	5, 836
Beet cultivators.....	9	5, 086	247, 997	3, 712	181, 533	331	15, 583
Hand cultivators (wheeled hoes).....	23	125, 048	397, 191	113, 928	341, 823	10, 482	50, 839
Weeders.....	23	12, 273	192, 948	11, 172	155, 256	683	31, 789
Other cultivators and weeders <sup>1</sup> .....	33	94, 051	642, 120	71, 350	630, 871	25, 814	65, 154
Attachments and parts.....	67	-----	4, 069, 645	-----	3, 739, 352	-----	225, 527

<sup>1</sup> Grape, chisel, orchard, and rotary hoes, quack-grass diggers, combination seeders and cultivators, 1 and 2 row spring-tooth cultivators, shovel plows, etc.

TABLE 7.—HARVESTING MACHINERY MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
				In United States		For export	
		Number	Value	Number	Value	Number	Value
Total.....	77	-----	\$28, 386, 628	-----	\$23, 467, 903	-----	\$9, 200, 813
Grain binders.....	6	42, 405	6, 649, 786	34, 895	4, 985, 585	26, 167	4, 299, 086
Grain headers.....	3	2, 857	664, 582	1, 230	260, 300	2, 690	627, 947
Combined harvesters and threshers	7	5, 131	7, 284, 429	3, 563	5, 810, 210	1, 878	1, 747, 218
Corn binders.....	5	20, 829	2, 933, 319	24, 085	3, 330, 037	325	52, 416
Potato-digging machines (elevator type).....	13	4, 594	352, 219	4, 869	374, 029	506	40, 202
Potato diggers (plow type).....	13	2, 027	46, 765	2, 650	58, 109	185	3, 690
Pea and bean harvesters.....	16	5, 712	232, 303	5, 715	242, 357	42	362
Beet lifters.....	6	1, 516	67, 518	1, 815	81, 319	560	27, 618
Other harvesting machinery <sup>1</sup> .....	22	16, 907	2, 747, 631	11, 169	2, 276, 109	6, 583	523, 500
Attachments and parts.....	47	-----	7, 408, 076	-----	6, 049, 848	-----	1, 878, 774

<sup>1</sup> Corn harvesters (not binders), rice binders, self-rake reapers, corn pickers and huskers (field), bean, beet, celery, and ensilage harvesters, cane loaders, grass-seed strippers, etc.

## CENSUS OF MANUFACTURES: 1925

TABLE 8.—HAYING MACHINERY MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
		Number	Value	In United States		For export	
				Number	Value	Number	Value
Total.....	47	-----	\$15, 457, 022	-----	\$12, 246, 907	-----	\$3, 319, 067
Mowers.....	11	112, 299	6, 041, 832	82, 848	4, 337, 362	35, 272	1, 949, 393
Rakes:							
Sulky (dump).....	15	61, 050	1, 805, 246	35, 940	1, 085, 496	19, 310	556, 808
Side-delivery.....	10	15, 474	1, 143, 538	15, 564	1, 132, 383	480	39, 428
Sweep.....	10	11, 092	415, 474	12, 792	424, 540	454	14, 601
Tedders.....	7	2, 046	143, 232	2, 438	192, 089	108	5, 439
Loaders.....	10	15, 746	1, 243, 034	16, 286	1, 312, 280	98	9, 121
Stackers.....	13	3, 716	360, 726	4, 762	412, 300	97	6, 502
Windrowers and bunchers.....	6	2, 882	50, 018	2, 882	50, 018	-----	25-
Other haying machinery <sup>1</sup> .....	5	1, 150	78, 896	1, 171	82, 390	2	206
Attachments and parts.....	27	-----	4, 175, 026	-----	3, 218, 029	-----	738, 109

<sup>1</sup> Combined sweep rakes and stackers, derrick forks, hay hoists, etc.

TABLE 9.—MACHINES FOR PREPARING CROPS FOR MARKET OR USE MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
		Number	Value	In United States		For export	
				Number	Value	Number	Value
Total.....	174	-----	\$27, 917, 902	-----	\$27, 185, 878	-----	\$4, 039, 041
Grain threshers (wood):							
Width of rear 46 inches and under.....	22	919	561, 958	1, 400	1, 021, 407	168	134, 674
Width of rear 47 inches and over.....	12	262	355, 991	453	615, 252	9	15, 670
Grain threshers (steel):							
Width of rear 46 inches and under.....	11	10, 486	9, 613, 190	8, 139	7, 526, 086	1, 674	1, 541, 466
Width of rear 47 inches and over.....	9	1, 898	2, 866, 329	1, 946	3, 331, 874	278	376, 343
Pea and bean threshers.....	12	752	461, 430	745	466, 030	5	4, 896
Peanut threshers (pickers).....	5	606	292, 371	596	289, 581	10	2, 790
Clover hullers.....	3	238	185, 837	257	278, 713	84	43, 437
Ensilage cutters (silo fillers).....	25	8, 771	1, 973, 524	8, 485	1, 790, 162	416	90, 047
Fodder cutters (hand and power).....	17	5, 841	168, 794	4, 476	114, 845	563	30, 704
Corn shellers (hand).....	19	39, 352	301, 307	22, 268	153, 077	16, 851	147, 625
Corn shellers (power):							
Spring (2, 4, 6, and 8 hole).....	17	2, 691	345, 312	2, 316	324, 803	700	61, 834
Cylinder.....	9	1, 343	540, 533	1, 073	460, 316	189	49, 736
Corn huskers and shredders.....	12	2, 225	1, 219, 023	3, 772	1, 827, 305	14	7, 591
Hay presses:							
Horse.....	17	1, 448	294, 544	990	186, 893	688	136, 338
Engine.....	18	1, 744	813, 637	1, 706	741, 912	276	109, 697
Feed grinders and crushers:							
Hand.....	12	64, 768	191, 677	8, 161	25, 974	58, 146	168, 305
Power.....	32	33, 283	1, 373, 444	35, 349	1, 399, 023	1, 450	53, 430
Grain cleaners and graders (for small grain only).....	20	17, 329	944, 323	12, 274	741, 961	4, 300	153, 026
Potato sorters and graders.....	5	960	61, 002	958	60, 982	2	20
Other machines for preparing crops for market or use <sup>1</sup> .....	23	12, 172	298, 126	12, 657	317, 381	405	42, 575
Attachments and parts.....	86	-----	5, 055, 550	-----	5, 512, 301	-----	868, 567

<sup>1</sup> Rice threshers, almond hullers, cucumber and melon seed threshers, raisin stemmers, seed-corn driers and graders, root cutters, clover cutters, etc.

TABLE 10.—TRACTORS AND TRACTION ENGINES, FARM, MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
		Number	Value	In United States		For export	
				Number	Value	Number	Value
Total.....	64	-----	\$121,302,345	-----	\$93,025,850	-----	\$27,742,448
Tractors, total.....	53	167,553	100,848,691	121,998	76,029,276	45,924	23,354,709
Wheeled type, by belt horsepower.....	33	158,037	82,892,374	114,160	61,412,712	45,073	21,918,626
Under 20.....	6	106,870	36,329,069	73,828	25,325,641	33,854	1,445,230
20 to 24.....	8	21,153	11,908,694	17,234	9,496,680	4,322	2,736,762
25 to 29.....	10	8,283	8,478,526	6,567	6,558,389	1,441	1,577,123
30 to 39.....	19	20,102	21,219,385	15,196	16,046,249	5,273	5,613,869
40 to 49.....	10	1,099	2,706,572	903	2,242,488	144	285,908
50 and over.....	7	530	2,250,129	432	1,743,265	40	259,734
Tracklaying type, all sizes <sup>1</sup> .....	7	6,060	17,441,015	4,579	14,136,619	703	1,407,416
Motor cultivators (including garden tractors).....	16	3,456	515,302	3,259	479,945	148	28,667
Traction engines, steam (all sizes).....	7	97	251,971	200	519,060	57	164,940
Attachments and parts.....	42	-----	20,201,683	-----	16,477,514	-----	4,222,799

<sup>1</sup> The figures for numbers by horsepower groups do not agree with those in Table 4 of the Engines and water-wheels report because the former represent a grouping based on *belt horsepower* and the latter one based on *rated horsepower*. A large number of tractors were reported with a belt horsepower under 20 and a rated horsepower over 20, and consequently the data for these tractors are included in the figures for the "Under 20" group in one report and in those for the "20 to 29" group in the other.

<sup>2</sup> Can not be shown by size without disclosing operations of individual establishments.

TABLE 11.—HORSE-DRAWN VEHICLES MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
		Number	Value	In United States		For export	
				Number	Value	Number	Value
Total.....	149	-----	\$17,487,982	-----	\$17,457,040	-----	\$245,718
Farm wagons:.....	43	15,115	821,560	14,472	785,978	423	27,396
1-horse.....	74	93,362	9,403,263	94,926	9,578,724	677	75,028
2-horse.....	32	34,955	1,837,064	34,076	1,793,231	777	35,035
Farm trucks:.....	30	28,222	1,039,337	27,014	984,092	1,330	61,475
With wood wheels.....	14	1,205	100,966	1,084	91,116	109	8,710
With metal wheels.....	35	20,486	1,871,727	20,141	1,835,773	54	4,992
Light spring vehicles, other than buggies.....	19	1,307	49,551	1,144	41,909	111	5,916
Buggies.....	22	9,569	169,357	6,015	127,960	600	14,800
Carts (2-wheeled).....	63	-----	2,195,157	-----	2,218,257	-----	12,366
Other horse-drawn vehicles for farm use <sup>1</sup> .....	-----	-----	-----	-----	-----	-----	-----
Attachments and parts.....	-----	-----	-----	-----	-----	-----	-----

<sup>1</sup> Bobsleds, dump wagons, trailers, tobacco trucks, etc.



TABLE 12.—BARN AND BARNYARD EQUIPMENT MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
		Number	Value	In United States		For export	
				Number	Value	Number	Value
Total.....	144		\$8, 969, 737		\$8, 889, 299		\$122, 293
Overhead feed and litter carriers (box and gearing only).....	22	10, 068	398, 991	9, 919	394, 768	140	5, 140
Hay carriers.....	12	46, 479	411, 379	46, 013	414, 882	800	6, 200
Track for carriers (feet).....	19	2, 461, 108	444, 636	2, 340, 718	423, 334	107, 700	19, 016
Hayforks (harpoon, grapple, etc.).....	11	58, 393	133, 313	57, 866	128, 515	850	6, 900
Hay slings.....	9	49, 112	116, 567	51, 002	119, 649	100	400
Feed trucks.....	14	1, 447	38, 887	1, 379	36, 769	75	2, 245
Stanchions.....	26	388, 414	1, 237, 656	382, 482	1, 218, 801	5, 000	15, 000
Manger partitions and fittings.....	20	36, 580	99, 715	33, 251	90, 276	100	220
Stalls and fittings (not including stanchions and manger divisions).....	22	161, 637	952, 105	159, 940	942, 693	1, 756	10, 480
Stock pens (steel).....	20		469, 038		468, 214		3, 080
Hog troughs.....	52	126, 429	109, 407	122, 659	110, 017		
Stock tanks and waterers.....	75	185, 713	2, 027, 901	182, 987	2, 036, 951	2, 008	29, 614
Feed cookers.....	14	7, 907	74, 450	7, 839	73, 969		
Stock feeders.....	15	4, 737	87, 893	4, 655	87, 551	6	17
Tank heaters.....	19	27, 493	218, 305	26, 590	213, 199		
Other equipment <sup>1</sup> .....	34		2, 147, 494		2, 129, 711		23, 381

<sup>1</sup> Barn-door hangers, barn cupolas, hoists, dipping, hauling, and storage tanks, hog catchers, oilers, and scrapers, water bowls, currycombs, etc.

TABLE 13.—MISCELLANEOUS FARM EQUIPMENT MANUFACTURED AND SOLD: 1925

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
		Number	Value	In United States		For export	
				Number	Value	Number	Value
Total.....	602		\$107, 748, 547		\$99, 345, 367		\$8, 347, 289
Beekkeepers' supplies.....	19		2, 275, 030		2, 073, 033		110, 371
Cane mills.....	4	3, 396	164, 244	807	36, 755	2, 850	146, 027
Cider mills.....	13	15, 943	273, 464	14, 960	260, 314	23	387
Cornerribs, portable.....	10	5, 968	447, 420	5, 850	447, 578		
Dairy machinery:							
Milking-machine units.....	10	15, 004	1, 117, 762	14, 312	1, 145, 290	1, 364	75, 485
Cream separators—							
Hand.....	18	168, 857	7, 226, 183	164, 956	7, 281, 533	7, 337	341, 131
Power.....	6	1, 648	612, 717	1, 687	583, 415	59	90, 420
Butter-making equipment.....	6		433, 897		429, 262		11, 120
Attachments and parts.....	12		1, 256, 356		1, 306, 934		109, 901
Engines, internal-combustion (stationary and portable, except automotive and marine):							
Less than 5 h. p.....	32	155, 469	7, 879, 456	127, 941	6, 551, 256	18, 767	1, 064, 145
5 or more, but under 10 h. p.....	34	20, 925	2, 498, 454	16, 034	1, 937, 534	4, 271	499, 137
10 or more, but under 20 h. p.....	24	6, 021	2, 005, 699	3, 793	1, 236, 582	2, 980	1, 041, 317
Attachments and parts.....	17		1, 059, 750		949, 347		190, 014
Elevators, farm:							
Portable.....	19	5, 339	1, 170, 659	5, 686	1, 236, 716	1	145
Stationary.....	12	1, 145	325, 123	1, 284	366, 451		
Eveners.....	9		137, 649		136, 758		36
Fertilizer distributors (horse-drawn).....	28	68, 058	584, 572	67, 193	559, 919	180	1, 914
Forks, hoes, rakes, spades, and shovels.....	38	17, 228, 100	13, 070, 370	16, 146, 286	12, 485, 810	1, 028, 348	699, 126
Gates, farm.....	7	90, 392	509, 001	89, 841	506, 374	120	1, 584
Grain bins, portable.....	16	1, 228	133, 806	1, 224	133, 206		

TABLE 13.—MISCELLANEOUS FARM EQUIPMENT MANUFACTURED AND SOLD:  
1925—Continued

KIND	Number of establishments	MANUFACTURED		SOLD BY MANUFACTURERS—			
		Number	Value	In United States		For export	
				Number	Value	Number	Value
Lawn mowers:							
Hand.....	18	876,316	\$6,574,680	788,109	\$5,933,203	76,165	\$539,383
Power.....	9	7,230	1,394,085	7,177	1,382,464	185	34,415
Lightning rod (feet).....	16	7,906,862	\$853,809	8,062,170	873,451		
Lime spreaders.....	15	6,589	267,212	6,451	263,018	83	3,910
Manure spreaders.....	21	53,839	6,328,818	50,898	6,065,552	40	4,911
Poultry-farm equipment:							
Incubators.....	39	161,360	5,913,274	159,013	5,566,957	3,253	88,436
Brooders.....	34	135,578	1,657,100	138,640	1,685,230	1,567	19,634
Other equipment.....	89		1,288,034		1,287,211		3,492
Attachments and parts.....	12		138,823		135,805		665
Pumps, water:							
Hand.....	47	706,201	2,710,576	640,388	2,427,563	59,816	267,631
Windmill.....	23	192,331	1,579,593	163,606	1,416,509	24,362	130,914
Irrigation.....	22	22,139	2,067,931	19,448	1,949,948	2,539	128,639
Attachment and parts.....	30		1,313,796		1,105,005		143,687
Water-supply units, complete (residence).....	41	103,777	9,818,090	98,241	9,619,157	2,701	246,709
Pump jacks.....	39	58,129	487,229	55,230	460,002	2,208	26,592
Pushcarts and hand trucks.....	10	44,109	387,947	42,023	374,391	1,930	11,831
Scrapers.....	8	33,102	324,557	28,016	295,157	5,050	30,772
Scythes, snathes, and cradles.....	9		694,737		608,988		48,648
Silos.....	34	5,779	2,129,376	5,725	2,136,508	23	7,867
Spraying outfits, complete:							
Power (engine not included).....	20	9,926	1,881,520	8,838	1,596,761	341	93,536
Hand (with tank, barrel, knapsack, etc.).....	18	247,764	1,410,753	232,913	1,321,011	16,137	87,579
Spray pumps (not included above):							
Power.....	9	3,840	261,963	3,771	261,143	396	24,569
Hand (small hand spray guns not included).....	13	82,294	342,383	68,130	274,969	12,145	50,201
Stalk cutters.....	18	6,934	308,840	8,880	376,313	13	590
Stump pullers (hand and power).....	7	1,434	221,988	1,295	206,109	145	14,821
Trucks, tongue.....	9	19,134	178,235	27,684	290,407	2,631	27,658
Wheelbarrows:							
Wooden.....	11	126,413	565,209	113,690	488,871	12,397	56,875
Tabular (steel).....	4	29,984	156,940	18,886	103,000	10,301	47,245
Windmills.....	32	100,439	4,052,755	76,910	2,902,039	18,122	961,984
Attachments and parts.....	13		689,811		390,403		138,426
Windmill towers.....	28	55,068	1,629,642	39,819	1,073,818	14,029	496,262
Wood-sawing machines:							
Circular.....	43	24,769	413,842	24,396	407,490	123	4,342
Drag.....	13	2,510	148,478	2,298	141,651	199	7,274
Miscellaneous items <sup>1</sup> .....			3,688,641		3,543,598		135,818
Attachments and parts <sup>2</sup> .....			2,686,268		2,718,598		80,713

<sup>1</sup> Brood coops, feeders, fountains, nests, roosts, bone cutters, "sunlite" windows, sprouters, etc.<sup>2</sup> Cheese-making equipment, ditches and graders, seed-potato cutters, brush rakes and burners, dehydrators, water sprinklers, boll-weevil catchers, poison moppers, singletrees and doubletrees, neck yokes, evaporator pans, kettles and furnaces, husking pins, knife grinders, disk sharpeners, steel wheels, scoop gates, posthole augers and diggers, milk coolers, hay knives, fence posts, stone boats, manure loaders, axes, fruit presses, grain tanks, well casings, ladders, overhead irrigation systems, etc.<sup>3</sup> Includes value of attachments and parts for water-supply systems, elevators, sprayers, manure spreaders, wood-sawing machines, and undistributed agricultural implements.

TABLE 14.—VALUE OF FARM EQUIPMENT MANUFACTURED, FOR PRINCIPAL GROUPS, BY STATES: 1925, 1923, 1922, AND 1921

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported greater values of farm equipment manufactured than some of the States shown separately. No corresponding tabulation by States was made for 1924]

KIND AND STATE	1925	1923	1922	1921
Plows, harrows, cultivators, and other tillage implements.....	\$51,477,881	\$49,082,201	\$18,729,480	\$31,707,567
Illinois.....	24,001,883	19,190,279	5,637,082	13,104,308
Indiana.....	10,615,258	11,018,254	4,863,101	3,487,103
New York.....	4,216,566	5,687,024	2,392,169	4,307,432
Ohio.....	2,406,766	3,718,349	1,653,576	3,840,045
Wisconsin.....	1,347,440	858,976	751,078	2,294,402
Georgia.....	1,188,093	826,232	(1)	468,528
Pennsylvania.....	1,129,543	1,275,164	704,317	478,729
Tennessee.....	973,838	886,875	(1)	410,118
California.....	662,586	439,023	391,757	272,168
Virginia.....	589,222	599,830	300,351	(1)
Nebraska.....	336,577	(1)	(1)	(1)
Minnesota.....	277,278	164,303	157,738	(1)
Iowa.....	180,374	113,872	(1)	(1)
All other States.....	3,552,457	4,304,020	1,878,311	2,975,734
Planting machinery.....	13,709,184	9,587,825	4,214,337	8,440,689
Illinois.....	4,921,560	3,170,336	1,123,331	2,617,769
Ohio.....	2,392,409	1,736,161	1,048,571	1,004,747
Indiana.....	(1)	1,551,274	569,063	(1)
Wisconsin.....	(1)	1,399,018	563,980	1,374,989
New York.....	260,891	231,177	183,790	328,744
All other States.....	6,134,324	1,499,859	725,602	3,114,460
Harvesting and haying machinery.....	43,843,650	41,781,372	19,446,571	28,258,511
Illinois.....	33,231,423	31,939,970	14,380,410	20,470,344
New York.....	1,655,263	2,014,725	1,348,461	2,590,357
Iowa.....	1,382,105	(1)	(1)	(1)
Ohio.....	485,694	682,174	872,333	742,986
Missouri.....	307,603	(1)	(1)	(1)
Indiana.....	150,904	154,752	(1)	(1)
All other States.....	6,630,658	6,989,751	2,845,367	4,454,824
Machines for preparing crops for market or use.....	27,917,902	30,761,122	18,293,848	21,436,405
Illinois.....	4,564,484	6,441,215	3,716,646	4,250,298
Wisconsin.....	4,523,013	7,463,465	2,812,038	5,014,919
Michigan.....	4,067,791	2,248,095	674,390	(1)
Indiana.....	3,857,044	4,174,807	3,589,244	1,686,870
Minnesota.....	3,032,424	2,485,579	1,830,541	(1)
Iowa.....	2,680,358	1,478,753	1,395,089	(1)
Ohio.....	2,054,885	3,469,487	1,942,640	2,228,220
New York.....	1,376,603	936,370	1,099,524	967,190
Pennsylvania.....	795,980	1,054,830	599,248	947,215
Missouri.....	213,037	(1)	(1)	(1)
All other States.....	752,283	1,008,521	634,488	6,332,693
Tractors and traction engines.....	121,302,345	93,782,550	53,242,822	53,168,819
Michigan <sup>2</sup> .....	51,525,244	(1)	(1)	16,555,124
Minnesota <sup>2</sup> .....		2,132,736	1,801,668	2,272,129
Illinois <sup>2</sup> .....		14,272,323	8,464,003	11,737,693
Indiana <sup>2</sup> .....		(1)	(1)	1,308,814
Wisconsin.....	21,663,841	13,691,580	8,955,548	9,677,208
California.....	(1)	8,472,740	4,263,381	1,526,466
Iowa.....	(1)	(1)	755,731	1,958,668
Ohio.....	3,261,804	3,331,005	3,458,613	4,130,715
All other States.....	16,745,887	51,882,166	25,543,878	4,002,062

<sup>1</sup> Included in "All other States" to avoid disclosing operations of individual establishments.

<sup>2</sup> Can not be shown separately for 1925 without disclosing operations of individual establishments.

# ELECTRICAL MACHINERY, APPARATUS, AND SUPPLIES

[A preliminary report for this industry was issued under date of April 23, 1927]

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of machinery, apparatus, and supplies for employment directly in the generation, storage, transmission, or utilization of electric energy. It does not include the manufacture of electric-lighting fixtures, electric signs, nor motor-driven tools, washing machines, adding machines, and other machines constructed with built-in motors, these products being classified for census purposes in other industries. Table 20 shows the total output of these products, for all industries, so far as separately reported by the manufacturers.

**Detailed statistics of products (Tables 4-19).**—For those classes of products which are manufactured principally in the "Electrical machinery, apparatus, and supplies" industry, the detailed statistics of products cover, in addition to the output of establishments assigned to this industry, electrical equipment made as secondary products (so far as separately reported) by establishments engaged primarily in other industries. (See sec. 12, p. 6.) The most important class of such products is insulated wire and cable (Table 16), which was reported for 1925 to the value of \$61,980,477 by establishments engaged primarily in the manufacture of plain wire.

**Radio apparatus (Table 11).**—In making use of the figures for radio apparatus it must be remembered that they represent, not the value of the completed installations, but merely the value of the instruments and appliances manufactured.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925.....	1,739	239,921	\$323,834,541	\$2,762,255	\$636,692,076	\$1,540,002,041	\$903,309,965	589,398
1923.....	1,671	234,892	305,455,263	2,386,948	548,626,673	1,293,001,771	744,375,008	480,268
1921.....	1,333	161,204	194,242,357	924,696	344,069,963	833,985,443	489,915,480	(3)
1919.....	1,404	212,374	238,188,852	1,218,203	425,098,211	997,968,119	572,869,908	438,082
1914.....	1,030	118,078	73,806,329	290,889	154,728,076	335,170,194	180,442,118	226,320
PER CENT OF INCREASE								
1923-1925....	4.1	2.1	6.0	15.7	16.1	19.1	21.4	22.7
1921-1923....	25.4	45.7	57.3	158.1	59.5	55.0	51.9	-----
1921-1925....	30.5	48.8	66.7	198.7	85.0	84.7	84.4	-----
1914-1925....	68.8	103.2	338.8	849.6	311.5	359.5	400.6	160.4

<sup>1</sup> Including also cost of fuel, electric power, factory supplies, and containers.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> These figures differ slightly from the corresponding ones published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3, p. 1003.)

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925,  
AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 21, p. 1014.]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	239,921	241,194	232,805	226,724	222,257	220,369	218,717
1923 <sup>1</sup> .....	234,892	230,154	227,122	235,658	236,648	234,639	234,059
1921 <sup>1</sup> .....	161,204	187,075	179,429	169,760	165,542	162,090	155,944
1919 <sup>1</sup> .....	212,374	209,593	205,356	201,393	198,316	196,418	198,071
California.....	3,491	3,691	3,422	3,321	3,065	3,143	2,983
Colorado.....	56	64	63	79	66	55	47
Connecticut.....	14,171	13,920	13,911	13,881	13,642	13,476	13,292
Illinois.....	35,463	38,505	36,715	34,225	33,293	32,594	32,597
Indiana.....	14,272	13,530	13,000	12,685	12,581	12,908	13,185
Iowa.....	78	86	85	80	60	67	60
Kansas.....	116	114	110	106	90	91	63
Kentucky.....	533	523	542	551	552	542	538
Maryland.....	1,087	1,030	1,067	1,079	1,082	1,089	1,063
Massachusetts.....	25,065	24,096	23,623	23,919	24,137	24,121	23,873
Michigan.....	3,706	3,562	3,570	3,577	3,513	3,484	3,433
Minnesota.....	845	819	813	835	782	720	697
Missouri.....	6,708	5,515	5,564	5,569	5,906	6,201	6,575
New Hampshire.....	640	697	633	589	539	555	572
New Jersey.....	23,800	23,731	22,773	22,151	21,708	21,401	21,534
New York.....	40,407	40,902	39,655	38,568	37,173	36,510	35,348
North Carolina.....	32	29	29	29	34	35	35
Ohio.....	23,860	23,132	22,236	21,837	21,934	21,494	20,720
Oregon.....	62	51	51	50	53	58	61
Pennsylvania.....	35,763	37,172	35,597	34,785	33,465	33,739	33,400
Rhode Island.....	1,302	1,402	1,354	1,341	1,272	1,205	1,195
Texas.....	103	98	97	85	85	87	95
Virginia.....	73	72	69	67	68	62	62
Washington.....	245	267	243	208	214	207	217
West Virginia.....	475	522	439	511	498	472	443
Wisconsin.....	7,116	7,227	6,702	6,166	6,101	5,718	6,265

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <sup>1</sup> .....	224,454	233,902	248,069	265,006	273,418	272,136
1923 <sup>1</sup> .....	234,419	234,125	234,882	239,048	242,629	245,321
1921 <sup>1</sup> .....	149,697	150,816	152,224	154,844	156,466	156,556
1919 <sup>1</sup> .....	204,160	212,354	218,493	227,409	235,285	241,640
California.....	3,071	3,406	3,667	3,917	4,230	3,979
Colorado.....	49	46	48	47	50	52
Connecticut.....	13,564	13,606	14,474	15,155	15,605	15,523
Illinois.....	32,678	33,780	35,433	37,500	38,778	39,457
Indiana.....	13,673	14,413	15,438	16,493	16,911	16,452
Iowa.....	60	67	79	90	98	108
Kansas.....	64	69	115	153	209	210
Kentucky.....	526	528	522	528	531	515
Maryland.....	1,053	1,001	1,026	1,048	1,071	1,072
Massachusetts.....	24,195	24,578	25,293	26,750	27,860	28,333

See footnote at end of table

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925—Continued

[See note at head of this table]

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
Michigan.....	3,399	3,508	3,757	4,196	4,260	4,210
Minnesota.....	712	777	875	1,040	1,031	1,038
Missouri.....	6,842	7,206	7,600	7,770	7,838	7,907
New Hampshire.....	588	627	711	703	733	738
New Jersey.....	22,617	23,470	25,108	26,612	27,225	27,275
New York.....	36,104	37,712	40,741	45,423	48,065	48,654
North Carolina.....	30	35	35	33	33	33
Ohio.....	21,656	23,489	25,745	28,250	28,467	27,359
Oregon.....	64	68	73	71	73	72
Pennsylvania.....	34,113	35,357	36,796	38,073	38,885	37,769
Rhode Island.....	1,248	1,229	1,273	1,263	1,383	1,460
Texas.....	101	106	120	124	121	117
Virginia.....	66	80	82	81	83	79
Washington.....	236	254	262	278	282	267
West Virginia.....	407	448	438	501	499	516
Wisconsin.....	6,925	7,601	7,848	8,310	8,344	8,179

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 80; 1923, 89.7; 1921, 80; 1919, 81.3.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num-ber	Horse-power	Num-ber	Horse-power	Num-ber	Horse-power
Prime movers, total.....	66,878	589,398	52,410	480,268	42,468	<sup>1</sup> 438,082
Steam engines.....	174	53,768	249	173,853	274	62,000
Steam turbines.....	73	180,312			51	131,231
Internal-combustion engines.....	42	5,061	60	6,775	103	7,446
Water wheels and turbines.....	11	622	25	1,802	17	1,800
Electric motors driven by purchased current.....	66,578	349,635	52,076	297,838	42,023	235,605
Electric motors, total.....	127,778	688,430	95,651	531,257	80,495	479,366
Driven by purchased current.....	66,578	349,635	52,076	297,838	42,023	235,605
Driven by current generated in establish-ment reporting.....	61,200	338,795	43,575	233,419	38,472	243,761
.....		<i>Kilo-watts</i>		<i>Kilo-watts</i>		<i>Kilo-watts</i>
Electric generators.....	398	172,403	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY CLASS AND VALUE, FOR THE UNITED STATES:  
1919 TO 1925

CLASS	1925	1923	1921	1919
Total value.....	\$1,653,550,065	\$1,377,514,869	\$884,594,192	\$1,063,526,297
Electrical machinery, apparatus, and supplies industry, all products.....	1,540,002,041	1,293,001,771	833,985,443	997,968,119
Electrical machinery, apparatus, and supplies.....	1,435,470,008	1,194,187,188	758,081,155	879,281,791
Custom work and repairs.....	6,886,627	10,942,327	4,824,954	27,106,016
All other products.....	97,645,406	87,872,256	70,179,334	91,680,312
Electrical machinery, apparatus, and supplies, secondary products of other industries.....	113,548,024	84,513,098	50,608,749	63,558,178
Electrical machinery, apparatus, and supplies, total, all industries.....	1,549,018,032	1,278,700,286	809,589,904	944,839,969
Batteries and parts and supplies (see Table 9).....	155,247,811	118,065,613	66,882,965	92,463,195
Conduits, interior <sup>1</sup> (see Table 18).....	46,329,735	<sup>2</sup> 37,500,210	<sup>2</sup> 19,346,266	<sup>2</sup> 19,266,629
Control apparatus (see Table 6).....	31,302,841	33,176,615	19,550,522	<sup>3</sup> 21,583,542
Electric fans (see Table 8).....	12,562,636	12,053,861	8,610,946	9,908,001
Fire-alarm apparatus (see Table 7).....	3,489,828	2,639,919	2,404,155	2,082,340
Fuses (see Table 18).....	10,392,806	9,245,283	4,483,023	7,895,098
Generators, motor-generator sets, and automotive starter-motors (see Table 5).....	110,185,015	106,376,674	65,172,221	91,117,518
Household heating and cooking appliances (see Table 12).....	75,102,165	63,914,840	37,670,836	38,748,242
Ignition apparatus for internal-combustion engines (see Table 15).....	41,854,205	<sup>4</sup> 31,831,251	<sup>4</sup> 20,589,193	<sup>4</sup> 51,286,793
Industrial apparatus and appliances, not including motor-driven tools and devices (see Table 12).....	10,283,335	6,788,157	3,821,502	3,741,715
Insulated wire and cable (see Table 16).....	210,617,310	184,472,095	98,332,970	128,682,339
Insulators <sup>5</sup> (see Table 18).....	17,857,503	16,374,082	6,508,726	6,504,147
Lamps, incandescent (bulbs only) (see Table 10).....	73,558,210	71,966,225	59,728,398	57,646,900
Measuring instruments, relays, and instrument transformers (see Table 13).....	31,650,355	28,221,484	21,032,535	19,322,164
Motors (not including starters or controllers), and motor parts and supplies (see Table 8).....	113,109,577	109,188,685	74,446,738	106,985,637
Radio apparatus, including tubes (see Table 11).....	176,990,334	54,000,470	10,647,617	<sup>6</sup> 8,074,636
Switchboards, panel boards, cabinets, circuit breakers, and switches (see Table 14).....	69,759,067	57,856,166	36,298,897	<sup>6</sup> 26,327,837
Telegraph apparatus (see Table 7).....	2,922,163	2,085,854	244,069	<sup>6</sup> 2,649,865
Telephone apparatus (see Table 7).....	81,510,409	92,398,031	101,992,354	46,214,342
Transformers (except measuring-instrument and radio transformers), induction voltage regulators, current-limiting reactors, synchronous converters, and double-current generators (see Table 6).....	62,153,155	59,114,722	42,103,028	27,060,624
Wiring devices (see Table 17).....	34,806,452	34,966,232	21,806,416	<sup>6</sup> 26,919,178
Miscellaneous electric machinery, apparatus, and supplies <sup>6</sup> (see Table 19).....	177,333,030	146,463,817	87,916,527	150,349,727

<sup>1</sup> Includes conduit made by establishments which purchase steel pipe for use as material, but does not include finished conduit made by plants which make their own steel pipe.

<sup>2</sup> Not strictly comparable with data for 1925; includes data for underground conduits.

<sup>3</sup> Figures not strictly comparable with those for later years because of changes in classification.

<sup>4</sup> Not comparable with data for 1925 because of the inclusion of data for timers in the figures for 1925, but not for earlier years.

<sup>5</sup> Porcelain insulators, and knobs, tubes, and cleats are made mainly by establishments classified in the "Pottery" industry. Such establishments reported "porcelain electrical supplies" to the value of \$21,826,971 for 1925, \$21,248,382 for 1923, and \$25,689,892 for 1921. The values shown for this item in the body of the table represent only the products of establishments in the "Electrical machinery, apparatus, and supplies" industry.

<sup>6</sup> Not including electric-lighting fixtures, electric signs, nor motor-driven tools, washing machines, cash registers, adding machines, and other machines with built-in motors, these products being classified for census purposes in other industries.

TABLE 5.—GENERATORS, MOTOR-GENERATOR SETS, AND AUTOMOTIVE STARTER-MOTORS—PRODUCTION, BY NUMBER AND VALUE: 1919 TO 1925

	1925	1923	1921	1919
Total value.....	\$110,185,015	\$106,376,674	\$65,172,221	\$91,117,518
Generators, not including motor-generator sets, automotive generators, or self-contained power and lighting outfits, value.....	\$23,215,976	\$22,743,565	\$18,436,081	\$19,307,735
Alternating current—				
Steam-turbine driven—				
Number.....	386	594	577	676
Kilovolt-amperes.....	2,054,125	2,266,968	1,693,525	1,902,798
Value.....	\$8,468,376	\$9,317,122	\$6,742,983	\$8,262,802
Other, including synchronous condensers and frequency changers <sup>1</sup> —				
Number.....	1,712	1,381	1,110	<sup>2</sup> 3,123
Kilovolt-amperes.....	1,619,895	<sup>(3)</sup>	1,300,952	<sup>2</sup> 821,597
Value.....	\$9,431,072	\$9,191,158	\$8,770,431	\$4,403,290
Direct current—				
Steam-turbine driven—				
Number.....	6,562	2,247	175	2,262
Kilowatts.....	45,445	20,252	13,672	408,866
Value.....	\$1,514,708	\$762,761	\$217,011	\$2,704,563
Other—				
Number.....	9,410	8,061	5,516	<sup>4</sup> 4,345
Value.....	\$3,801,820	\$3,472,524	\$2,705,656	\$3,937,080
Motor-generator sets and dynamotors:				
Number.....	14,309	8,195	5,809	<sup>(5)</sup>
Value.....	\$8,264,118	\$7,304,964	\$6,311,458	\$4,851,404
Under 50 kilowatts—				
Number.....	13,530	7,170	5,085	<sup>(6)</sup>
Value.....	\$8,724,443	\$2,674,415	\$1,683,936	<sup>(6)</sup>
50 kilowatts and over—				
Number.....	779	1,025	724	<sup>(6)</sup>
Kilowatts.....	313,458	278,340	193,153	<sup>(6)</sup>
Value.....	\$4,539,675	\$4,630,549	\$4,627,522	<sup>(6)</sup>
Automotive generators and starter-motors:				
Number.....	3,879,208	3,730,945	1,422,045	<sup>(5)</sup>
Value.....	\$56,221,356	\$54,007,391	\$27,442,763	<sup>7</sup> \$36,662,797
Self-contained power and lighting outfits not over 5-kilowatt capacity, including engine, generator, and control, but excluding storage batteries.				
Number.....	43,408	41,816	20,540	61,357
Value.....	\$11,142,620	\$7,684,977	\$4,042,956	\$24,078,536
Parts and supplies, value.....	\$11,340,945	\$14,635,777	\$8,938,963	\$6,217,046

<sup>1</sup> Figures for synchronous condensers and frequency changers can not be given separately without disclosing operations of individual establishments.

<sup>2</sup> Not comparable with figures for later years; does not include figures for synchronous condensers and frequency changers.

<sup>3</sup> No comparable data.

<sup>4</sup> Not comparable with figures for later years; does not include figures for generators under 10 kilowatts not for use as automotive generators.

<sup>5</sup> No data.

<sup>6</sup> Not reported separately.

<sup>7</sup> Not comparable with figures for later years; includes value of generators under 10 kilowatts not for use as automotive generators.



TABLE 6.—TRANSFORMERS, INDUCTION VOLTAGE REGULATORS, CURRENT-LIMITING REACTORS, AND CONTROL APPARATUS—PRODUCTION, BY NUMBER AND VALUE: 1925, 1923, AND 1921<sup>1</sup>

	1925	1923	1921
Transformers, induction voltage regulators, and current-limiting reactors, value.....	\$62, 153, 155	\$59, 114, 722	\$42, 103, 028
Constant-potential transformers (except measuring instruments and radio transformers) <sup>2</sup> —			
Less than 1 kilovolt-ampere—			
Number.....	1, 191, 588		
Kilovolt-amperes.....	(3)		
Value.....	\$2, 937, 598	641, 792	338, 144
1 to 500 kilovolt-amperes—		4, 790, 163	2, 993, 715
Number.....	195, 671	\$31, 187, 794	\$24, 220, 713
Kilovolt-amperes.....	3, 931, 777		
Value.....	\$28, 766, 327		
Over 500 kilovolt-amperes—			
Number.....	3, 369	3, 406	1, 393
Kilovolt-amperes.....	8, 214, 441	7, 713, 719	3, 443, 520
Value.....	\$20, 233, 698	\$18, 506, 209	\$9, 742, 147
Constant-current transformers (except measuring instruments and radio transformers), current-limiting reactors, induction voltage regulators, synchronous converters, and double-current generators, value.....	\$10, 215, 532	\$9, 420, 719	\$8, 140, 168
Control apparatus, value.....	\$31, 302, 841	\$33, 176, 615	\$19, 550, 522
Industrial magnetic control for alternating-current motors—			
Number.....	135, 445	70, 552	17, 936
Value.....	\$5, 783, 926	\$4, 233, 099	\$1, 486, 264
Industrial magnetic control for direct-current motors, value.....	\$6, 324, 568	\$4, 002, 829	\$3, 352, 239
Industrial manual control for alternating-current motors: Number.....	417, 768	(4)	46, 693
Value.....	\$6, 089, 381	\$7, 964, 089	\$3, 392, 611
Industrial manual control for direct-current motors, value.....	\$1, 608, 912	\$4, 335, 781	\$1, 700, 516
Pressure regulators, float switches, limit switches, phase-failure relays (regulating and protective), electric brakes, and miscellaneous switches, value.....	\$4, 535, 903		
Railway and vehicle controllers, field rheostats, generator voltage regulators, theater dimmers, battery-charging rheostats, miscellaneous rheostats, and resistance units (not including radio rheostats), value.....	\$6, 960, 151	\$12, 670, 817	\$9, 618, 892

<sup>1</sup> Because of changes in classification no comparable figures can be given for 1919.<sup>2</sup> For radio transformers and measuring-instrument transformers, see Tables 11 and 13, respectively.<sup>3</sup> Data incomplete.<sup>4</sup> No comparable data.

TABLE 7.—TELEPHONE, TELEGRAPH, AND FIRE-ALARM APPARATUS—PRODUCTION, BY VALUE: 1919 TO 1925

	1925	1923	1921	1919
Total value.....	\$87, 922, 490	\$97, 123, 804	\$104, 640, 578	\$50, 956, 047
Telephone apparatus, value.....	\$81, 510, 499	\$92, 398, 031	\$101, 992, 354	\$46, 214, 342
Switchboards, central-office and private-branch exchange, value.....	\$42, 463, 527	\$50, 552, 822	\$63, 785, 122	\$14, 459, 602
Substation instruments—				
Number.....	2, 458, 730	3, 249, 802		
Value.....	\$18, 401, 666	\$22, 748, 623	\$38, 207, 232	\$31, 754, 740
Interior systems, value.....	\$4, 433, 383	\$19, 096, 586		
Parts for telephone apparatus, value.....	\$16, 211, 923			
Telegraph apparatus (not including wireless):				
Keys, sounders, and relays, all types.....	\$519, 040	\$2, 085, 854	\$244, 069	\$2, 649, 365
All other wire-telegraph apparatus.....	\$2, 403, 123			
Fire-alarm apparatus, value.....	\$3, 489, 828	\$2, 639, 919	\$2, 404, 155	\$2, 062, 340

<sup>1</sup> Not comparable with figures for later years because of changes in classification.<sup>2</sup> Reported as "police, fire, district, and miscellaneous."

TABLE 8.—MOTORS (NOT INCLUDING CONTROLLERS<sup>1</sup> OR AUTOMOTIVE STARTER-MOTORS<sup>2</sup>), MOTOR PARTS AND SUPPLIES, AND ELECTRIC FANS—PRODUCTION, BY NUMBER AND VALUE: 1925, 1923, AND 1921<sup>3</sup>

	1925	1923	1921
Motors and motor parts and supplies, total value.....	\$113, 109, 577	\$109, 188, 685	\$74, 446, 738
Stationary motors, value.....	\$92, 647, 851	\$84, 777, 710	\$58, 073, 493
Fractional horsepower—			
Number.....	2, 288, 348	1, 994, 931	992, 620
Value.....	\$28, 249, 265	\$23, 939, 172	\$16, 906, 738
1 horsepower and over—			
Direct current—			
Number.....	77, 637	59, 256	39, 072
Horsepower.....	635, 130	533, 394	415, 419
Value.....	\$15, 796, 026	\$13, 865, 447	\$9, 357, 953
Alternating current—			
Polyphase induction—			
200 horsepower and under—			
Number.....	248, 516	296, 519	168, 195
Value.....	\$34, 908, 246	\$35, 586, 235	\$20, 732, 924
Over 200 horsepower—			
Number.....	1, 246	1, 045	1, 442
Horsepower.....	464, 316	405, 738	470, 993
Value.....	\$2, 713, 797	\$1, 917, 553	\$4, 958, 476
Single phase—			
Number.....	75, 688	53, 227	40, 659
Value.....	\$5, 670, 586	\$4, 417, 802	\$2, 917, 644
Synchronous motors—			
Number.....	1, 985	2, 588	707
Horsepower.....	931, 514	(4)	671, 470
Value.....	\$5, 309, 331	\$5, 031, 501	\$3, 184, 758
Railway and vehicle motors, not including automotive starter-motors, <sup>2</sup> value.....	\$7, 514, 547	\$10, 586, 043	\$6, 974, 247
Motor parts and supplies, value.....	\$12, 947, 179	\$13, 824, 932	\$9, 393, 998
Electric fans, total:			
Number.....	865, 698	5 688, 088	425, 088
Value.....	\$12, 562, 636	\$ 12, 053, 861	\$8, 610, 946
Desk fans—			
Number.....	769, 163	610, 261	349, 369
Value.....	\$8, 818, 952	\$7, 933, 397	\$5, 523, 052
Ceiling and column fans—			
Number.....	63, 976	51, 538	53, 454
Value.....	\$1, 835, 256	\$1, 649, 215	\$1, 728, 097
Exhaust fans (power-motor type)—			
Number.....	19, 864		
Value.....	\$1, 666, 867		
Ventilating fans (desk-fan type)—			
Number.....	12, 695	(4)	22, 265
Value.....	\$241, 561	\$2, 471, 249	\$1, 359, 767

<sup>1</sup> See Table 6.<sup>2</sup> See Table 5.<sup>3</sup> Because of changes in classification no comparable figures can be given for 1919.<sup>4</sup> No comparable data.<sup>5</sup> Includes 3,275 ventilating fans valued at \$331,017.

TABLE 9.—BATTERIES AND BATTERY PARTS AND SUPPLIES—PRODUCTION, BY QUANTITY AND VALUE: 1919 TO 1925

	1925	1923	1921	1919
Total value.....	\$155, 247, 811	\$118, 065, 613	\$66, 882, 965	\$92, 463, 195
Storage batteries:				
Weight of plates, pounds.....	388, 264, 038	226, 106, 900	115, 412, 327	138, 438, 540
Value.....	\$88, 870, 186	\$96, 922, 291	\$43, 242, 262	\$56, 648, 347
Primary batteries, value.....	\$40, 981, 859	\$21, 446, 098	\$14, 608, 893	\$28, 829, 068
Dry—				
Small, for flash-light and radio—				
Number.....	467, 460, 972	172, 436, 795	30, 868, 528	94, 483, 894
Value.....	\$24, 922, 773	\$9, 848, 345	\$2, 768, 047	\$7, 514, 833
Other—				
Number.....	63, 536, 044	49, 423, 039	84, 962, 130	79, 390, 082
Value.....	\$12, 315, 834	\$9, 054, 924	\$10, 500, 455	\$17, 805, 611
Wet—				
Number.....	2, 776, 888	1, 883, 572	896, 630	2, 050, 946
Value.....	\$3, 743, 252	\$2, 542, 829	\$1, 280, 391	\$3, 508, 624
Parts and supplies, value.....	\$25, 395, 766	\$29, 697, 224	\$9, 031, 810	\$6, 985, 780
Storage-battery parts and supplies.....	21, 341, 597	25, 921, 099	5, 316, 018	3, 387, 805
Primary-battery parts and supplies.....	4, 054, 169	3, 776, 125	3, 715, 792	3, 597, 975

TABLE 10.—INCANDESCENT LAMPS (BULBS ONLY)—PRODUCTION, BY NUMBER AND VALUE: 1925, 1923, AND 1921<sup>1</sup>

	1925	1923	1921
Total value.....	\$73, 558, 210	\$71, 966, 225	\$59, 728, 398
Tungsten:			
Large—			
Vacuum—			
Number.....	204, 973, 625	232, 699, 601	154, 971, 269
Value.....	\$34, 540, 088		
Gas filled—			
Number.....	61, 488, 129	\$54, 179, 645	\$46, 084, 138
Value.....	\$20, 352, 400		
Miniature—			
Automobile—			
Number.....	114, 800, 550	88, 243, 456	35, 951, 863
Value.....	\$12, 432, 676	\$11, 354, 546	\$5, 713, 647
Other types—			
Number.....	65, 946, 289	61, 008, 765	<sup>2</sup> 49, 634, 294
Value.....	\$4, 840, 733	\$4, 860, 701	\$6, 760, 781
Carbon, including miniature types:			
Number.....	7, 102, 572	7, 420, 528	<sup>3</sup> 5, 998, 497
Value.....	\$1, 392, 363	\$1, 571, 333	\$1, 169, 832

<sup>1</sup> Because of changes in classification no comparable figures can be given for 1919.<sup>2</sup> Includes miniature carbon lamps, not reported separately.<sup>3</sup> Not including miniature carbon lamps.

TABLE 11.—RADIO APPARATUS—PRODUCTION, BY KIND, NUMBER, AND VALUE: 1919 TO 1925

	1925	1923	1921	1919
Total value.....	\$176, 990, 334	\$54, 000, 470	\$10, 647, 617	\$8, 074, 636
Radio apparatus, value.....	\$155, 819, 724	\$44, 176, 298	\$9, 549, 649	\$8, 074, 636
Loud speakers—				
Number.....	2, 844, 652	623, 146		
Value.....	\$18, 955, 916	\$5, 608, 330		
Head sets—				
Number.....	1, 352, 442	1, 781, 793		
Value.....	\$2, 164, 529	\$5, 345, 380		
Receiving sets—				
Tube type—				
Number.....	2, 395, 790	190, 374		
Value.....	\$93, 356, 546	\$13, 326, 116		
Crystal type—				
Number.....	113, 192	223, 303		
Value.....	\$344, 079	\$669, 906		
Transmitting sets—			( <sup>1</sup> )	( <sup>1</sup> )
Number.....	1, 076	1, 082		
Value.....	\$1, 355, 708	\$919, 930		
Transformers—				
Number.....	5, 295, 507	1, 571, 817		
Value.....	\$7, 614, 774	\$3, 929, 581		
Rheostats—				
Number.....	3, 562, 543	\$1, 377, 432		
Value.....	\$2, 018, 592			
Lightning arresters—				
Number.....	886, 591			
Value.....	\$533, 434			
Miscellaneous parts, value.....	\$29, 476, 086	\$12, 969, 623		
Radio tubes, value.....	\$21, 170, 610	\$9, 824, 172	\$1, 697, 968	( <sup>1</sup> )
Under 5 watts—				
Number.....	23, 403, 781	4, 087, 400	101, 964	( <sup>2</sup> )
Value.....	\$18, 849, 877			
Other—				
Number.....	611, 662	\$9, 524, 172	\$1, 097, 938	( <sup>2</sup> )
Value.....	\$2, 320, 733			

<sup>1</sup> Not reported separately.<sup>2</sup> Not reported.

TABLE 12.—INDUSTRIAL AND HOUSEHOLD APPARATUS AND APPLIANCES—  
PRODUCTION, BY NUMBER AND VALUE: 1919 TO 1925

	1925	1923	1921	1919
Industrial apparatus and appliances, not including motor-driven tools and devices, value.....	\$10,283,335	\$6,788,157	\$3,821,502	\$3,741,715
Commercial cooking apparatus (hotel ranges, broilers, bread-baking ovens, toasters, urns, etc.)—				
Number.....	54,556	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$1,568,740	\$749,463	( <sup>2</sup> )	( <sup>2</sup> )
Electric furnaces, value.....	\$1,047,576	\$731,790	\$469,728	\$1,040,337
Industrial electric heating devices (soldering irons, melting pots, kettles, etc.)—				
Number.....	257,207	( <sup>1</sup> )	-----	-----
Value.....	\$1,343,918	\$725,154	-----	-----
Industrial electric heating units (space heaters, immersion heaters, and other miscellaneous industrial heating units), value.....	\$1,732,457	\$1,151,551	\$876,428	( <sup>2</sup> )
Industrial electric ovens and electric heating equipment for such ovens—				
Number.....	3,141	( <sup>1</sup> )	-----	-----
Value.....	\$1,174,217	\$995,931	\$952,471	( <sup>2</sup> )
Welding apparatus—				
Arc, including generating units or transformers, value.....	\$1,759,319	\$778,756	\$1,045,019	* \$2,701,378
Spot and resistance, value.....	\$1,657,108	\$1,655,512	\$477,856	
Household heating and cooking appliances.....	\$75,102,165	\$63,914,840	\$37,670,836	\$38,748,242
Air heaters—				
Convactor type—				
Number.....	99,297	310,363	* 207,476	(2)
Value.....	\$374,367			
Radiant type—				
Number.....	396,318	\$1,862,180	* \$1,151,122	(2)
Value.....	\$1,653,327			
Cooking utensils—				
Grills—				
Number.....	209,318	184,834	\$3,164,332	* \$7,815,212
Value.....	\$577,628	\$923,369		
Percolators—				
Number.....	434,095	260,050		
Value.....	\$3,593,496	\$2,340,446		
Toasters (2-slice)—				
Number.....	735,856	476,606		
Value.....	\$1,885,780	\$1,433,409		
Waffle irons—				
Number.....	315,777	131,445		
Value.....	\$1,864,257	\$788,669		
Curling irons—				
Number.....	1,534,786	( <sup>1</sup> )	227,220	(2)
Value.....	\$1,703,088	\$1,480,395	\$938,130	(2)
Disk stoves, hot plates, and ranges under 2½ kilowatts—				
Number.....	216,559	3,676,645	* \$1,795,427	* \$3,444,170
Value.....	\$1,123,823			
Domestic ranges, 2½ kilowatts and over—				
Number.....	85,153	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Value.....	\$6,776,963			
Electric fireless cookers—				
Number.....	63,201	11,640	2,890	(2)
Value.....	\$486,195	\$452,620	\$118,516	(2)
Flatirons—				
Number.....	2,936,361	2,434,280	1,146,179	1,407,822
Value.....	\$7,998,429	\$8,193,941	\$4,730,907	\$5,646,421
Heating pads—				
Number.....	265,588	( <sup>1</sup> )	(2)	(2)
Value.....	\$976,703	\$880,506	(2)	(2)
Vacuum cleaners—				
Number.....	1,107,592	1,240,742	739,534	977,339
Value.....	\$39,971,111	\$35,951,514	\$19,752,905	\$21,842,439
Water heaters (over 660 watts)—				
Number.....	54,042	14,507	36,672	(2)
Value.....	\$769,009	\$406,199	\$366,769	(2)
Miscellaneous household heating and cooking devices, value.....	\$5,347,984	\$5,489,947	\$5,652,728	(2)

<sup>1</sup> No comparable data.<sup>2</sup> Not reported separately.<sup>3</sup> Not strictly comparable on account of changes in classification.<sup>4</sup> Not including value of generating units or transformers.<sup>5</sup> Reported as radiators and radiant heaters.<sup>6</sup> Ranges only.

TABLE 13.—MEASURING INSTRUMENTS, RELAYS, AND INSTRUMENT TRANSFORMERS—PRODUCTION, BY NUMBER AND VALUE: 1925, 1923, AND 1921<sup>1</sup>

	1925	1923	1921
Total value.....	\$31,650,355	\$28,221,484	\$21,032,535
Measuring instruments:			
Watt-hour meters—			
Alternating current—			
Number.....	2,195,082	1,921,921	1,457,989
Value.....	\$16,189,750	\$15,375,369	\$11,875,734
Direct current—			
Number.....	90,007	89,565	73,414
Value.....	\$1,996,456	\$1,612,179	\$982,773
Demand meters and ampere-hour meters—			
Number.....	20,992	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$1,043,936	\$898,591	\$613,391
Graphic recording meters—			
Number.....	3,946	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$507,603	\$697,925	\$242,548
Laboratory testing and scientific indicating instruments, value.....	\$1,507,995	\$1,769,228	\$1,590,978
Miniature indicating instruments, 3½ inches and under—			
Number.....	4,047,573	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$2,787,181	\$1,555,137	\$879,008
Portable meters, other than miniature—			
Number.....	56,231	28,958	28,861
Value.....	\$1,460,019	\$810,840	\$791,100
Switchboard indicating instruments—			
Number.....	99,779	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$2,412,567	\$1,964,762	\$2,098,739
Instrument and meter transformers:			
Number.....	114,402	126,442	83,975
Value.....	\$1,773,161	\$2,275,943	\$1,492,675
Relays, other than industrial motor control:			
Number.....	229,224	83,567	13,088
Value.....	\$1,971,687	\$1,261,510	\$465,589

<sup>1</sup> Because of changes in classification no comparable figures can be given for 1919.<sup>2</sup> No comparable data.TABLE 14.—SWITCHBOARDS, PANEL BOARDS, CABINETS, CIRCUIT BREAKERS, AND SWITCHES—PRODUCTION, BY NUMBER AND VALUE: 1925, 1923, AND 1921<sup>1</sup>

	1925	1923	1921
Total value.....	\$69,759,067	\$57,856,166	\$36,298,897
Switchboards for light and power, not including panel boards or industrial motor-control panels, value.....	\$19,135,502	\$18,775,862	\$14,664,627
Panel boards for light and power:			
Number.....	466,324	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$5,866,628	\$3,903,898	\$3,323,696
Cabinets, junction boxes, and pull boxes:			
Number.....	538,675	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$1,628,987	\$1,964,330	\$1,819,612
Oil circuit breakers, for sale as such:			
Indoor—			
Number.....	434,620	80,637	43,871
Value.....	\$12,677,136	\$10,880,032	\$5,374,426
Outdoor, value.....	\$5,814,110	\$1,370,812	\$1,665,745
Air circuit breakers, not included in switchboards, value.....	\$2,596,599	\$2,952,356	\$1,092,949
Disconnecting switches, single-pole units, value.....	\$3,643,281	\$1,927,620	
Indoor—			
Number.....	100,134	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$1,333,048	( <sup>2</sup> )	( <sup>2</sup> )
Outdoor, value.....	\$2,310,233	( <sup>2</sup> )	( <sup>2</sup> )
Knife switches, not including industrial motor control:			
Open, value.....	\$1,856,979	\$1,340,263	\$1,702,180
Inclosed—			
Number.....	2,055,891	( <sup>2</sup> )	703,409
Value.....	\$5,925,610	\$4,413,680	\$3,032,681
Bus supports, value.....	\$1,172,150	\$10,321,313	\$3,622,981
Miscellaneous switches and switchboard accessories, value.....	\$10,042,085		

<sup>1</sup> Because of changes in classification no comparable figures can be given for 1919.<sup>2</sup> Not reported.<sup>3</sup> No comparable data.

TABLE 15.—IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES—PRODUCTION, BY NUMBER AND VALUE: 1919 TO 1925

	1925	1923	1921	1919
Total value.....	\$41,854,205	\$31,831,251	\$20,589,193	\$51,286,793
Spark plugs:				
Number.....	62,576,387	( <sup>2</sup> )	36,122,540	67,913,661
Value.....	\$13,878,282	\$13,659,921	\$10,013,109	\$19,518,997
Coils:				
Number.....	4,178,334	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$7,836,656	\$7,867,710	\$6,510,841	\$9,755,674
Magneto-generators:				
Number.....	466,660	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$9,930,223	\$10,303,620	\$4,065,243	\$22,012,122
Timers:				
Number.....	3,572,489	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Value.....	\$10,209,044	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> Does not include value of timers (not reported separately prior to 1925), and therefore is not comparable with figures for 1925.

<sup>2</sup> No comparable data.

<sup>3</sup> Not reported separately.

TABLE 16.—INSULATED WIRE AND CABLE—PRODUCTION, BY VALUE: 1919 TO 1925

	1925	1923	1921	1919	
Total value.....	\$210,617,310	\$184,472,095	\$98,332,970	\$128,682,339	
Insulated wire and cable reported by kind of insulation (products of plants which purchase bare wire for insulating), value.....	148,636,833	120,380,266	72,363,988	84,216,921	
Rubber insulated—					
Lighting and power circuit—					
Braided.....	29,017,142	41,669,214	30,167,672	(1)	
Leaded.....	9,250,445				
Telephone.....	8,627,849				
Flexible cord (rubber insulation, cotton and silk covered).....	15,671,325	12,454,427	2,494,426		
Cotton insulated—					
Weatherproof.....	13,115,497	10,302,582	8,303,138		
Slow burning.....	441,986				
Paper insulated—					
Lighting and power circuit.....	12,055,419	35,744,837	20,148,717		
Telephone and telegraph cable (including submarine).....	40,059,425				
Varnished-cambric insulated.....	5,152,708	4,558,819	4,236,839		
Asbestos insulated.....	1,523,341	1,522,125	465,327		
Magnet—					
Cotton and silk covered.....	8,673,450	11,705,116	4,805,409		
Enameled.....	5,048,246	2,423,146	1,742,460		
Insulated wire and cable not reported separately by kind of insulation (products of plants which draw their own wire).....	61,980,477	64,091,829	25,968,982	44,465,418	

<sup>1</sup> Not reported separately.

TABLE 17.—WIRING DEVICES—PRODUCTION, BY NUMBER AND VALUE: 1925 AND 1923<sup>1</sup>

	1925	1923
Total value.....	\$34,806,452	\$34,966,232
Lamp sockets and receptacles:		
Number.....	108,117,878	( <sup>2</sup> )
Value.....	\$14,945,247	\$14,815,915
Snap switches (flush, surface, and pendant, all types):		
Number.....	27,152,098	( <sup>2</sup> )
Value.....	\$7,014,699	\$6,361,393
Attachment plugs and plug receptacles:		
Number.....	45,165,532	( <sup>2</sup> )
Value.....	\$4,294,683	\$4,378,900
Faceplates for wiring devices:		
Number.....	11,365,464	( <sup>2</sup> )
Value.....	\$1,050,596	\$1,190,555
Miscellaneous wiring devices, value.....	\$7,501,227	\$8,219,469

<sup>1</sup> Because of changes in classification no comparable figures can be given for 1921 and 1919.<sup>2</sup> No comparable data

TABLE 18.—FUSES, INTERIOR CONDUITS, AND INSULATORS—PRODUCTION, BY NUMBER AND VALUE: 1925

	1925		1925
Fuses, total value.....	\$10,392,806	Interior conduits—Continued.	
Inclosed fuses, for voltages under 125:		Armored conductor, and fittings.....	10,922,375
Number.....	7,324,607	Nonmetallic.....	3,554,986
Value.....	\$244,117	Metal raceways for surface wiring,	
Nonrenewable plug fuses, 125 volts:		and fittings.....	1,537,260
Number.....	61,814,563	Outlet boxes.....	6,719,969
Value.....	\$1,573,424	Switch boxes.....	1,306,819
Renewable plug fuses, 125 volts:		Lock nuts and bushings.....	1,250,969
Number.....	1,213,025		
Value.....	\$154,905	Insulators, total value.....	<sup>2</sup> \$17,857,503
Inclosed renewable fuses, 250 and 600		Porcelain:	
volts, and renewals therefor:		Pin type distribution, up to	
Number.....	24,347,653	45,000 volts—	
Value.....	\$2,729,512	Number.....	<sup>2</sup> 13,910,491
Inclosed nonrenewable fuses, 250 and		Value.....	<sup>2</sup> \$2,259,163
600 volts:		All types above 45,000 volts—	
Number.....	11,903,903	Number.....	<sup>2</sup> 5,953,116
Value.....	\$1,593,314	Value.....	<sup>2</sup> \$6,566,938
Inclosed fuses, for voltages higher		Special dry press:	
than 600 volts:		Number.....	69,495,327
Number.....	117,528	Value.....	\$3,273,294
Value.....	\$1,079,214	Knobs, tubes, and cleats:	
All other fuses, value.....	\$615,177	Number.....	<sup>2</sup> 462,050
Fuse blocks, clips, and bases, value.....	\$2,403,143	Value.....	<sup>2</sup> \$22,352
		Composition, value.....	\$5,735,756
Interior conduits, total value.....	<sup>1</sup> \$46,329,735		
Rigid steel, and elbows and couplings.	<sup>1</sup> 19,839,879		
Flexible steel.....	1,197,478		

<sup>1</sup> Includes value of conduit made by establishments which purchase steel pipe for use as material, but does not include finished conduit made by plants which make their own steel pipe.<sup>2</sup> Porcelain insulators, and knobs, tubes, and cleats, are made mainly by establishments classified in the "Pottery" industry. Such establishments reported "porcelain electrical supplies" to the value of \$21,826,971 for 1925. The values shown for this item in the body of the table represent only the products of establishments in the "Electrical machinery, apparatus, and supplies" industry.

TABLE 19.—MISCELLANEOUS ELECTRICAL MACHINERY, APPARATUS, AND SUPPLIES—PRODUCTION, BY VALUE: 1919 TO 1925<sup>1</sup>

	1925	1923	1921	1919
Total value.....	\$177,333,030	\$146,463,817	\$87,916,527	\$150,349,727
Electric locomotives, value.....	\$10,331,139	\$8,864,749	\$9,397,441	\$8,159,825
Electric signaling apparatus, value.....	\$5,080,987	\$7,142,304	\$6,444,097	\$6,124,131
Electrodes for lights and furnaces and carbon brushes and specialties, value.....	\$13,955,483	\$14,745,541	\$5,527,654	\$13,291,615
Electro-therapeutic apparatus (exclusive of X-ray tubes and motor-driven devices), value.....	\$9,788,358	\$5,991,382	\$6,820,277	\$5,911,221
Flash-light cases, value.....	\$5,248,405	\$3,642,418	(2)	(2)
Lightning arresters and choke coils, value.....	\$5,961,111	\$3,833,631	\$2,044,045	\$2,353,416
Overhead trolley-line material, value.....	\$4,239,547	\$8,796,369	\$2,691,124	\$9,379,145
Railway signals and attachments, value.....	\$14,029,779	\$4,465,648	\$1,620,351	(2)
Searchlights, floodlights, etc.:—				
Searchlights—				
Number.....	20,238			
Value.....	\$521,144			
Floodlights—				
Number.....	18,692			
Value.....	\$742,140			
Motion - picture, photo - engraving, and stage-projector lights—		\$2,478,988	\$1,943,402	\$4,342,246
Number.....	11,541			
Value.....	\$592,739			
Headlights— Locomotive, street-car, and other (not including motor-vehicle), value.....	\$945,033			
Rectifying apparatus, value.....	\$10,466,283	\$4,251,495	\$956,345	\$1,964,876
All other electrical machinery, apparatus, and supplies, value.....	\$95,430,882	\$82,251,292	\$50,471,791	\$98,823,252

<sup>1</sup> Not including electric-lighting fixtures, electric signs, nor motor-driven tools, washing machines, cash registers, adding machines, and other machines with built-in motors, these products being classified for census purposes in other industries.

<sup>2</sup> Not reported separately; included in "All other electrical machinery, apparatus, and supplies."

TABLE 20.—ELECTRICAL PRODUCTS CLASSIFIED IN OTHER INDUSTRIES, BY NUMBER AND VALUE: 1925

[This table shows the total output, in all industries, of the specified electrical products, which are normally classified in other industries but are manufactured to some extent as secondary products by establishments in the "Electrical machinery, apparatus, and supplies" industry.]

	1925		1925
Portable electric tools:		Washing machines:	
Grinders and buffers—		Number.....	795,268
Number.....	28,780	Value.....	\$60,832,247
Value.....	\$1,756,233	Electric signs, value.....	\$11,948,847
Drills and other portable motor-driven tools—		Electric-lighting fixtures, value.....	\$62,619,631
Number.....	102,516		
Value.....	\$4,472,492		
Drills reported separately—			
Number.....	85,654		
Value.....	\$3,684,345		
Drills and other motor-driven tools, not reported separately—			
Number.....	16,862		
Value.....	\$788,147		



TABLE 21.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately.]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	1, 739	295, 952	495	1 55, 536	239, 921	589, 398
California.....	110	4, 382	76	815	3, 491	8, 094
Colorado.....	6	71	1	14	56	64
Connecticut.....	65	16, 458	8	2, 279	14, 171	30, 906
Illinois.....	236	48, 489	62	12, 964	35, 463	61, 374
Indiana.....	57	16, 290	13	2, 005	14, 272	43, 292
Iowa.....	9	106	12	16	78	60
Kansas.....	8	146	4	26	116	112
Kentucky.....	10	628	1	94	533	749
Maryland.....	14	1, 314	5	252	1, 057	3, 745
Massachusetts.....	116	30, 445	25	5, 355	25, 065	57, 478
Michigan.....	53	4, 654	15	933	3, 706	6, 120
Minnesota.....	28	1, 213	7	361	845	1, 363
Missouri.....	54	8, 006	14	1, 284	6, 708	12, 461
New Hampshire.....	8	677	2	35	640	669
New Jersey.....	142	29, 131	29	5, 302	23, 800	59, 965
New York.....	334	49, 213	100	8, 706	40, 407	94, 543
North Carolina.....	3	42	1	9	32	100
Ohio.....	205	29, 255	43	5, 352	23, 860	58, 430
Oregon.....	10	83	4	17	62	81
Pennsylvania.....	133	42, 784	32	6, 989	36, 763	128, 321
Rhode Island.....	15	1, 557	4	251	1, 302	6, 146
Texas.....	8	125	6	16	103	199
Virginia.....	5	81	1	7	73	130
Washington.....	24	328	9	74	245	565
West Virginia.....	7	548	-----	73	475	2, 994
Wisconsin.....	55	9, 351	11	2, 224	7, 116	10, 706
All other States <sup>1</sup> .....	24	575	10	83	482	731

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>3</sup>
United States.....	\$120,614,875	\$323,834,541	\$2,762,255	\$636,692,076	\$1,540,002,041	\$903,309,965
California.....	1, 702, 536	4, 471, 822	78, 480	15, 683, 508	29, 781, 335	14, 097, 827
Colorado.....	31, 807	71, 684	-----	97, 031	267, 143	170, 112
Connecticut.....	5, 048, 957	17, 073, 677	10, 222	34, 245, 876	78, 365, 923	44, 120, 047
Illinois.....	30, 030, 617	51, 707, 562	284, 308	101, 884, 666	237, 301, 784	135, 417, 118
Indiana.....	3, 609, 460	17, 525, 533	17, 957	35, 151, 670	77, 555, 648	42, 403, 973
Iowa.....	32, 653	93, 987	-----	224, 732	644, 674	419, 942
Kansas.....	38, 646	85, 996	603	245, 269	482, 067	236, 798
Kentucky.....	237, 306	593, 405	-----	1, 090, 997	3, 111, 298	2, 014, 301
Maryland.....	427, 796	1, 484, 161	-----	1, 544, 968	6, 505, 111	4, 960, 143
Massachusetts.....	10, 827, 850	35, 109, 393	95, 253	43, 794, 331	147, 056, 901	103, 282, 570
Michigan.....	2, 514, 666	4, 821, 488	8, 473	11, 775, 388	34, 643, 466	22, 868, 078
Minnesota.....	786, 372	1, 003, 136	25, 211	3, 250, 325	6, 431, 580	3, 181, 255
Missouri.....	2, 682, 240	8, 059, 629	5, 336	15, 107, 520	39, 130, 533	24, 023, 013
New Hampshire.....	111, 507	528, 193	2, 065	1, 157, 982	2, 414, 169	1, 256, 187
New Jersey.....	11, 721, 366	29, 950, 657	108, 067	60, 784, 489	151, 471, 610	90, 687, 121
New York.....	19, 008, 257	57, 058, 187	1, 771, 806	114, 236, 354	239, 262, 117	125, 025, 763
North Carolina.....	16, 601	25, 167	-----	25, 074	68, 735	43, 661
Ohio.....	12, 055, 673	32, 141, 783	237, 709	80, 091, 843	181, 351, 409	101, 259, 566
Oregon.....	36, 614	73, 527	3, 445	159, 411	365, 959	206, 543
Pennsylvania.....	14, 210, 418	50, 013, 756	86, 042	86, 925, 276	236, 843, 492	149, 918, 216
Rhode Island.....	540, 830	1, 699, 058	3, 314	7, 624, 281	12, 431, 765	4, 807, 487
Texas.....	46, 646	108, 839	2, 261	295, 457	557, 026	261, 569
Virginia.....	12, 043	58, 879	-----	127, 911	238, 249	110, 338
Washington.....	127, 228	298, 058	3, 461	568, 830	1, 331, 649	769, 819
West Virginia.....	189, 089	617, 209	-----	1, 832, 251	3, 086, 120	1, 253, 869
Wisconsin.....	4, 378, 597	8, 619, 300	18, 136	17, 568, 595	46, 431, 351	28, 862, 756
All other States <sup>2</sup> .....	189, 100	540, 455	106	1, 192, 041	2, 870, 924	1, 678, 883

<sup>1</sup> Not including 14,022 salaried officers and employees of central administrative offices, with salaries aggregating \$31,008,241. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals of 69,558 salaried officers and employees and \$51,623,116. (See "Central-administrative-office employees," p. 119.)

<sup>2</sup> Alabama, 3 establishments; Arkansas, 2; District of Columbia, 1; Florida, 2; Georgia, 3; Louisiana, 1; Maine, 1; Oklahoma, 4; South Dakota, 1; Tennessee, 3; Utah, 3.

<sup>3</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>4</sup> See first 6 lines, Table 4, p. 1004.

## ENGINES AND WATER WHEELS

[A preliminary report for this industry was issued under date of April 11, 1927]

**Description of the industry.**—This industry embraces those establishments whose products of chief value fall in any one of the following four classes: (1) Steam engines (other than locomotives) and turbines; (2) internal-combustion engines of all kinds; (3) tractors and traction engines; (4) water turbines and water wheels. Engines made for installation as parts of complete motor vehicles or other machines manufactured in the same establishments are not treated as products of the engine industry. The values of traction and portable steam engines include the values of the boilers on which such engines are mounted. The value of steam boilers made for sale as separate units by establishments manufacturing engines or water wheels as their products of chief value is included in that of "Miscellaneous products and receipts for repair work" (Table 5), but the value of steam boilers made in establishments engaged primarily in the manufacture of products other than engines or water wheels is not included. (Establishments manufacturing boilers as their principal products are classified in the "Foundry and machine-shop products" industry.)

**Decrease in number of establishments.**—Although the value of engines manufactured increased between 1914 and 1919 and between 1921 and 1925, the number of establishments classified in this industry has declined from census to census.

The decrease between 1919 and 1925 is accounted for in part by the change from \$500 to \$5,000 in the minimum value-of-products limit. (See sec. 10, p. 5.) The decrease from 249 in 1923 to 220 in 1925 was the net result of a loss of 59 establishments and a gain of 30. Of the 59 establishments lost to the industry, 22 had gone out of business prior to the beginning of 1925, 16 were idle throughout the year, and 21 were engaged primarily in the manufacture of engines or water wheels in 1923 but reported other commodities—agricultural implements, motor vehicles, foundry and machine-shop products, etc.—as their principal products for 1925 and were therefore classified in the appropriate industries.

**Detailed statistics of products.**—The detailed statistics presented in Tables 4, 5, 6, and 7 include data for engines, etc., reported as secondary products by establishments classified in other industries. (See "Classification by industries," p. 6.)

The difference between the total value of the products of the engines and water wheels industry for 1921, as given in Table 5, \$199,565,239, and the corresponding total given in Table 1, \$199,498,575, is due to the inclusion in Table 5 and the exclusion from Table 1 of data for establishments reporting, for 1921, products valued at less than \$5,000. Data for establishments having products valued at less than \$5,000 in 1921 are also included in Tables 6 and 7. All figures for 1923 and 1925, however, are exclusive of data for these small establishments. (See sec. 10, p. 5.)

At each census some of the reports did not show, by type and by horsepower capacity, the number of engines manufactured, because of the incompleteness of the records kept by some of the manufacturers. At the censuses for 1919, 1921, and 1923 the data lacking were supplied by office estimates. This practice, however, was unsatisfactory and resulted in numerous inconsistencies in the figures for engines manufactured, particularly in the classification by sizes. At the current census, however, it was decided to publish the actual numbers of engines reported by type and by horsepower capacity, and to show as a separate item the value of engines which were not so reported. (See Tables 4 and 5.)

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power <sup>3</sup>
1925.....	220	51,099	\$73,584,921	\$1,058,127	\$145,783,687	\$313,587,851	\$167,804,164	224,194
1923.....	249	48,495	70,877,950	299,484	124,543,051	266,997,778	142,454,727	165,137
1921.....	296	35,567	52,004,861	584,417	111,698,365	199,498,575	87,800,210	(4)
1919.....	370	77,617	105,435,455	936,389	217,550,771	464,774,735	247,223,964	<sup>4</sup> 190,005
1914.....	446	29,657	21,420,737	145,921	31,460,227	72,121,112	40,660,885	<sup>5</sup> 62,106
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925.....	-11.6	5.4	3.8	253.3	17.1	17.4	17.8	35.8
1921-1923.....	-15.9	36.3	36.3	-48.8	11.5	33.8	62.2	-----
1921-1925.....	-25.7	43.7	41.5	81.1	30.5	57.2	91.1	-----
1914-1925.....	-50.7	72.3	243.5	625.1	363.4	334.8	312.7	261.0

<sup>1</sup> Including also cost of fuel, electric power, and shop supplies.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> See headnote, Table 3.

<sup>4</sup> Not called for on schedule.

<sup>5</sup> These figures differ slightly from the corresponding ones published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3.)

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 8, p. 1022]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	51,099	44,748	48,432	51,283	53,009	53,133	51,956
1923 <sup>1</sup> .....	48,495	46,799	49,494	52,684	53,620	53,544	52,224
1921 <sup>1</sup> .....	35,567	39,546	37,677	38,992	39,066	38,610	35,643
1919 <sup>1</sup> .....	77,617	90,102	85,232	83,076	74,983	70,193	70,452
California.....	1,503	1,295	1,416	1,458	1,573	1,535	1,516
Connecticut.....	978	995	1,006	1,009	1,008	1,022	1,017
Illinois.....	5,144	4,709	5,009	5,152	5,081	5,370	5,437
Indiana.....	2,683	2,264	2,485	2,571	2,639	2,757	2,682
Iowa.....	1,711	1,357	1,562	1,626	1,640	1,701	1,788
Massachusetts.....	836	793	835	853	866	839	824
Michigan.....	14,959	12,019	13,078	15,838	17,001	16,256	14,870
Minnesota.....	1,099	1,037	1,042	1,134	1,190	1,205	1,299
New Jersey.....	811	755	759	767	807	837	848
New York.....	2,329	2,073	2,230	2,296	2,306	2,335	2,245
Ohio.....	3,506	3,239	3,303	3,383	3,457	3,487	3,477
Pennsylvania.....	5,961	6,061	6,119	6,111	6,184	6,088	6,016
Washington.....	24	25	24	25	25	27	23
Wisconsin.....	8,496	7,096	7,630	7,958	8,178	8,669	8,877

See footnote at end of table.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925—Continued

[See note at head of this table]

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <sup>1</sup> .....	51,760	52,369	52,793	50,867	51,198	51,587
1923 <sup>1</sup> .....	50,123	47,858	45,497	42,790	43,265	44,040
1921 <sup>1</sup> .....	32,163	31,182	30,564	36,066	35,584	31,716
1919 <sup>1</sup> .....	72,749	73,265	74,811	76,852	78,240	81,449
California.....	1,577	1,599	1,556	1,491	1,478	1,540
Connecticut.....	1,012	947	918	920	928	952
Illinois.....	5,387	5,418	5,602	4,697	4,874	4,994
Indiana.....	2,643	2,697	2,751	2,711	2,901	3,071
Iowa.....	1,805	1,866	1,884	1,790	1,767	1,750
Massachusetts.....	871	841	829	824	831	830
Michigan.....	14,367	14,491	14,783	15,376	15,346	15,178
Minnesota.....	1,170	1,129	1,039	1,019	991	989
New Jersey.....	843	869	847	788	796	816
New York.....	2,230	2,324	2,350	2,484	2,523	2,525
Ohio.....	3,469	3,680	3,672	3,640	3,616	3,649
Pennsylvania.....	6,146	6,052	5,723	5,734	5,587	5,707
Washington.....	20	20	23	23	21	26
Wisconsin.....	9,158	9,415	9,764	8,315	8,434	8,459

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 84.1; 1923, 79.8; 1921, 77.3; 1919, 77.9

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS (POWER-PLANT EQUIPMENT), BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[The statistics in this table, which relate only to the *power-plant equipment* of the establishments in the industry, must not be confused with those in Tables 4, 5, 6, and 7, which refer to prime movers manufactured by these establishments. No data in regard to power-plant equipment were collected for 1921]

TYPE	1925		1923		1919	
	Number	Horse-power	Number	Horse-power	Number	Horse-power
Prime movers, total.....	12,322	224,194	10,196	165,137	10,477	190,005
Steam engines.....	89	26,229	104	45,078	108	42,737
Steam turbines.....	20	47,048				
Internal-combustion engines.....	119	12,819	138	14,811	49	27,845
Water wheels and turbines.....	6	250	8	857	216	15,773
Electric motors driven by purchased current.....	12,088	137,948	9,946	104,391	6	335
Electric motors, total.....	23,759	252,460	16,856	172,387	10,008	103,315
Driven by purchased current.....	12,088	137,948	9,946	104,391	10,008	103,315
Driven by current generated in establishment reporting.....	11,671	114,612	6,910	67,996	7,488	110,412
Electric generators.....	142	Kilo-watts 60,345	(?)	Kilo-watts (?)	(?)	Kilo-watts (?)

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—ENGINES AND WATER WHEELS, BY CLASS, NUMBER, HORSEPOWER, AND VALUE, FOR THE UNITED STATES: 1925

TYPE	NUMBER, BY RATED HORSEPOWER CAPACITY											TOTAL	
	Under 5	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 99	100 to 499	500 to 999	1,000 to 9,999	10,000 and over	Number	Value
Total value.....													\$357,268,704
Engines and turbines reported separately as to number and horsepower, value.....													236,888,490
Engines and turbines not reported separately as to number and horsepower, value.....													\$27,366,173
Steam engines:													
Reciprocating (other than traction)—													
Marine.....													
Stationary and portable.....	4	360	385	284	145	44	701	241	6	2		22	12,138
Traction.....	1,042	145	201	96	100	89	275	355	46	49	1	2,310	196,173
Internal-combustion engines:													
Diesel type (including semi-Diesel)—													
Marine.....												2,475	1,111,888
Other.....												101	4,127
Other internal-combustion engines (not including tractors)—													
Marine.....	5	63	257	635	132	184	759	873	43	15		1,105	103,827
Stationary.....												2,996	305,563
Detachable.....	1,752	2,211	3,678	1,174	1,419	765	806	1,047	34			12,886	473,476
Motor-vehicle.....	24,628											24,628	64,008
Other stationary and portable.....	803	122,582	147,610	21,840	6,132	4,593	447	84				304,091	6,736,193
Tractors—	157,149	26,741	5,683	7,796	1,244	920	1,902	695	14	5		202,159	1,079,594
Farm.....													
Other.....	1,042	1,867	134,008	23,381	90	116	2,028	21				164,097	3,727,166
Water turbines and water wheels.....	3,649	145	100	43								4,203	1,974,441
Amount received for contract work and repairs.....												475	36,685
Parts and attachments.....													( <sup>1</sup> )
Miscellaneous products <sup>6</sup> .....													5,333,066
													4,982,541
													52,999,881
													35,631,619

<sup>1</sup> This total is made up as follows: Engines and water wheels industry, all products, \$313,357,851, including engines and water wheels, \$220,573,810; parts, \$52,999,881, and miscellaneous products, custom work, and repairs, \$40,014,160; and engines and water wheels made as secondary products in other industries, \$43,680,833.

<sup>2</sup> Reciprocating steam engines, marine type, \$122,304; stationary and portable steam engines, \$3,180,903; steam turbines, \$4,920,078; Diesel and semi-Diesel engines, marine type, \$591,548; other Diesel and semi-Diesel engines, \$656,480; stationary internal-combustion engines, marine type, \$403,398; detachable internal-combustion engines, marine type, \$356,707; aviation engines, \$10,968; other stationary and portable internal-combustion engines, \$1,010,735; tractors, \$330,375; steam and water turbines, \$11,864,753; engines not specified as to type, \$3,599,894.

<sup>3</sup> Not including engines built for installation in motor vehicles manufactured in the same establishments; includes a small number of aviation engines.

<sup>4</sup> Includes data for garden tractors and motor cultivators, valued at \$315,302.

<sup>5</sup> Data incomplete.

<sup>6</sup> Agricultural implements, castings, pumps, railway supplies, machinery, etc.

TABLE 5.—ENGINES AND WATER WHEELS, BY TYPE AND VALUE: 1919 TO 1925

[The values of the several types of engines, as given in this table, include the amounts shown in footnote 2, Table 4, p. 1018]

	1925	1923	1921	1919
Total value.....	\$357,268,704	\$295,976,027	\$227,560,223	\$576,289,537
Engines and water-wheels industry, all products.....	313,587,851	266,997,778	199,565,239	464,774,735
Engines and water wheels.....	220,573,810	193,836,197	134,853,905	341,608,825
Parts.....	52,999,881	43,471,030	23,639,065	48,549,875
Miscellaneous products and receipts for repair work.....	40,014,160	29,690,551	41,072,269	74,616,035
Engines and water wheels, secondary products of other industries.....	43,680,853	28,978,249	27,994,984	111,514,802
Engines and water wheels, total, all industries.....	264,254,663	222,568,730	162,848,889	453,123,627
Steam engines, total.....	24,411,344	26,765,804	30,356,689	101,952,707
Reciprocating marine.....	636,328	1,169,702	5,915,612	27,951,268
Reciprocating stationary and portable.....	7,962,271	12,882,334	8,774,918	14,491,373
Stationary turbines.....	14,054,879	10,328,268	12,342,587	10,073,324
Marine turbines.....	( <sup>1</sup> )	( <sup>1</sup> )	2,320,809	46,101,653
Not reported as to type.....	1,757,866	2,385,000	1,002,763	3,335,089
Internal-combustion engines (not including tractors), total.....	117,893,644	110,751,692	74,698,921	174,367,872
Diesel and semi-Diesel type—				
Marine.....	7,352,481	14,012,493	8,273,359	(?)
Other.....	15,875,164			
Other internal-combustion engines—				
Marine—				
Stationary.....	8,833,105	8,492,273	7,603,651	20,578,132
Detachable.....	2,560,639			
Motor-vehicle <sup>3</sup> .....	<sup>4</sup> 55,623,879	<sup>4</sup> 59,074,243	<sup>4</sup> 31,005,352	<sup>4</sup> 60,988,532
Other stationary and portable.....	27,648,376	29,172,683	<sup>5</sup> 27,816,559	<sup>5</sup> 92,801,208
Tractors and traction engines, total.....	102,904,828	78,319,688	53,168,819	172,667,089
Tractors, internal-combustion.....	102,647,205	76,426,408	53,168,819	172,667,089
Traction engines, steam.....	257,623	1,893,280		
Water turbines.....	5,338,066	6,732,046	<sup>6</sup> 4,624,400	<sup>6</sup> 4,135,959
Engines and turbines not specified as to kind of power.....	<sup>7</sup> 13,706,781			

<sup>1</sup> No marine turbines reported for 1925 or 1923.

<sup>2</sup> Not reported separately; included with stationary and portable internal-combustion engines.

<sup>3</sup> Not including engines built for installation in motor vehicles manufactured in the same establishments.

<sup>4</sup> Includes data for a small number of aviation engines for 1925, and a small number of aviation and motor-cycle engines for 1923.

<sup>5</sup> Includes data for motor-cycle and aviation engines for 1921 and 1919, and for Diesel engines for 1919.

<sup>6</sup> Includes data for water motors, not reported separately.

<sup>7</sup> Reported as secondary products by establishments in other industries. Includes value of engines, \$1,842,028, and of steam and water turbines, \$11,703,091.

TABLE 6.—ENGINES AND TRACTORS, BY TYPE AND VALUE, BY STATES: 1919 TO 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, outranked some of those shown separately]

CLASS AND STATE	1925	1923	1921	1919
Internal-combustion engines (not including tractors), total.....	\$117,893,644	\$110,751,692	\$74,698,921	\$174,367,872
Michigan.....	38,341,951	40,670,002	23,862,142	62,378,949
Wisconsin.....	21,674,573	17,974,234	12,413,803	26,324,001
Pennsylvania.....	10,338,869	8,899,949	6,066,044	18,146,744
Ohio.....	9,384,520	7,077,136	8,672,103	7,528,724
Illinois.....	8,641,401	5,345,705	3,062,180	8,946,770
New York.....	7,568,497	6,208,796	5,209,807	15,990,967
California.....	5,211,230	2,841,961	2,063,777	3,793,416
Indiana.....	3,788,389	5,162,955	2,377,434	6,470,371
New Jersey.....	3,242,668	1,765,332	1,892,147	5,340,895
Missouri.....	3,229,771	3,758,684	2,712,803	3,467,091
Connecticut.....	1,913,496	2,202,480	2,159,882	5,303,758
Iowa.....	1,788,640	1,108,374	840,485	6,111,358
Minnesota.....	811,602	(1)	(1)	(1)
Massachusetts.....	768,499	978,116	(1)	(1)
Washington.....	422,598	(1)	(1)	(1)
All other States.....	766,940	1,257,988	2,866,614	4,564,228
Tractors (internal-combustion) and traction engines (steam), total.....	102,904,828	78,319,688	53,168,819	172,667,089
Michigan.....	37,966,997	39,558,902	16,555,124	42,225,330
Wisconsin.....	19,351,352	11,013,098	9,677,208	48,084,871
Illinois.....	18,634,287	10,595,224	11,737,633	34,554,193
Minnesota.....	4,819,999	1,406,389	2,278,129	10,888,184
Ohio.....	2,935,302	3,018,023	4,130,715	15,351,101
Pennsylvania.....	52,570	121,167	595,114	(1)
All other States.....	19,144,321	12,606,885	8,194,896	22,063,410
Steam engines (not including traction engines), total.....	24,411,344	26,765,304	30,356,689	101,952,707
Pennsylvania.....	8,703,778	10,102,276	14,291,199	44,287,051
Wisconsin.....	3,200,260	4,025,969	3,931,790	11,889,907
New York.....	1,232,522	2,436,409	2,281,656	3,982,885
Ohio.....	756,866	1,308,874	(1)	12,759,736
Illinois.....	636,161	655,822	763,164	970,793
New Jersey.....	429,292	721,253	999,973	5,634,776
Michigan.....	265,116	405,578	957,539	3,976,451
Georgia.....	160,147	(1)	(1)	(1)
Indiana.....	160,113	(1)	(1)	(1)
All other States.....	8,926,089	7,109,123	7,131,368	18,451,108

<sup>1</sup> Included with data for "All other States" to avoid disclosing operations of individual establishments.

TABLE 7.—INTERNAL-COMBUSTION ENGINES, BY TYPE AND VALUE, BY STATES:  
1919 to 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, outranked some of those shown separately]

TYPE AND STATE	1925	1923	1921	1919
Diesel and semi-Diesel (marine and stationary), total.....	\$23,227,645	\$14,012,493	\$8,273,359	( <sup>2</sup> )
Wisconsin.....	8,090,070	( <sup>1</sup> )	( <sup>1</sup> )	-----
New York.....	3,672,951	4,299,748	2,751,232	-----
California.....	2,532,666	1,588,979	1,195,412	-----
Missouri.....	2,068,131	( <sup>1</sup> )	( <sup>1</sup> )	-----
Pennsylvania.....	2,053,622	( <sup>1</sup> )	( <sup>1</sup> )	-----
Ohio.....	2,031,935	888,584	( <sup>1</sup> )	-----
Massachusetts.....	744,328	( <sup>1</sup> )	( <sup>1</sup> )	-----
Connecticut.....	588,498	666,088	( <sup>1</sup> )	-----
Indiana.....	496,365	( <sup>1</sup> )	( <sup>1</sup> )	-----
Illinois.....	236,440	( <sup>1</sup> )	( <sup>1</sup> )	-----
All other States.....	712,699	6,569,094	4,326,715	-----
Marine, other than Diesel or semi-Diesel, total.....	11,393,744	8,492,273	7,603,651	\$20,578,132
Michigan.....	3,318,125	1,189,857	575,329	2,640,974
New York.....	2,019,581	960,289	1,407,192	3,950,305
Wisconsin.....	1,426,607	2,228,642	1,329,812	1,969,093
Connecticut.....	1,181,407	1,374,892	1,559,540	5,089,231
California.....	741,245	546,599	417,852	1,880,171
Ohio.....	719,122	268,978	( <sup>1</sup> )	209,219
New Jersey.....	382,721	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Washington.....	31,390	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Illinois.....	25,822	55,129	( <sup>1</sup> )	61,992
All other States.....	1,547,724	1,861,887	2,313,926	4,777,147
Motor-vehicle (not including motor-cycle), total <sup>3</sup> .....	\$ 55,623,879	\$ 59,074,243	31,005,352	60,988,532
Michigan.....	33,448,060	42,948,443	21,392,954	35,093,951
Illinois.....	5,740,264	4,317,724	2,125,110	6,393,288
Wisconsin.....	4,526,422	4,165,489	1,706,537	8,788,341
Ohio.....	1,823,566	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
All other States.....	10,085,567	7,642,587	5,780,751	10,712,952
Stationary and portable (not including motor-vehicle, aviation, or marine), total.....	27,648,376	29,172,683	21,985,068	( <sup>2</sup> )
Wisconsin.....	7,631,474	10,844,703	7,663,161	-----
Ohio.....	4,809,897	4,942,295	3,256,185	-----
Pennsylvania.....	3,935,015	4,718,496	3,532,707	-----
Illinois.....	2,638,875	920,344	815,456	-----
Iowa.....	1,756,040	1,108,374	749,495	-----
Michigan.....	1,378,451	2,308,752	1,537,836	-----
Indiana.....	1,211,884	( <sup>1</sup> )	( <sup>1</sup> )	-----
Missouri.....	1,161,040	684,300	353,046	-----
New York.....	962,579	416,529	482,856	-----
California.....	816,484	493,536	380,891	-----
All other States.....	1,346,037	2,735,354	3,213,435	-----

<sup>1</sup> Included with data for "All other States" to avoid disclosing operations of individual establishments.

<sup>2</sup> No comparable data.

<sup>3</sup> Not including engines built for installation in motor vehicles manufactured in the same establishments.

<sup>4</sup> Includes data for a small number of aviation engines for 1925 and a small number of aviation and motor-cycle engines for 1923.



TABLE 8.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power <sup>1</sup>
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	220	59,394	49	28,246	51,099	224,194
California.....	11	1,942	3	436	1,503	5,857
Connecticut.....	13	1,152	3	171	978	2,621
Illinois.....	17	6,064	4	916	5,144	23,930
Indiana.....	13	3,034	-----	351	2,683	8,293
Iowa.....	5	1,998	-----	287	1,711	7,305
Massachusetts.....	6	1,092	-----	256	836	3,356
Michigan.....	22	16,184	4	1,221	14,959	61,011
Minnesota.....	8	1,336	5	232	1,099	4,878
New Jersey.....	8	1,006	6	189	811	1,889
New York.....	19	3,023	5	689	2,329	9,326
Ohio.....	28	4,094	2	586	3,506	13,970
Pennsylvania.....	23	7,475	8	1,506	5,961	53,569
Washington.....	4	30	1	5	24	226
Wisconsin.....	21	9,615	1	1,118	8,496	26,044
All other States <sup>2</sup> .....	22	1,349	7	283	1,059	1,919

  

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>4</sup>
United States.....	<sup>2</sup> \$18,208,524	\$73,584,921	\$1,058,127	\$145,783,687	<sup>3</sup> \$313,587,851	\$167,804,164
California.....	1,114,710	2,324,146	57,949	8,151,408	14,890,918	6,739,510
Connecticut.....	397,739	1,421,174	64,959	1,322,801	4,346,082	3,023,281
Illinois.....	1,876,021	7,804,396	9,284	19,384,812	38,295,539	18,910,727
Indiana.....	660,317	3,652,148	-----	6,429,485	15,278,500	8,849,015
Iowa.....	573,483	2,221,545	-----	3,410,318	9,016,780	5,606,462
Massachusetts.....	455,617	1,261,482	500	988,510	3,459,430	2,470,920
Michigan.....	2,581,379	20,299,618	44,586	51,558,438	95,932,026	44,373,588
Minnesota.....	539,950	1,552,489	500	3,434,652	7,259,239	3,824,587
New Jersey.....	547,698	1,373,860	4,300	1,666,767	4,883,829	3,217,062
New York.....	1,465,700	3,651,405	409,919	5,709,427	13,042,388	7,332,961
Ohio.....	1,706,321	5,343,575	288,253	9,255,987	21,110,689	11,854,702
Pennsylvania.....	3,471,577	8,812,309	96,538	9,757,429	26,387,608	16,630,179
Washington.....	13,600	44,829	1,174	49,345	126,755	77,410
Wisconsin.....	2,173,271	12,330,804	70,165	22,749,409	53,174,241	30,424,832
All other States <sup>2</sup> .....	631,141	1,491,141	10,000	1,914,899	6,383,827	4,468,928

<sup>1</sup> See headnote, Table 3.

<sup>2</sup> Not including 333 salaried officers and employees of central administrative offices, with salaries aggregating \$1,086,644. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals of 8,612 salaried officers and employees and \$19,295,168. (See "Central-administrative-office employees," p. 1193.)

<sup>3</sup> Delaware, 1 establishment; Kansas, 3; Kentucky, 3; Louisiana, 1; Maine, 2; Maryland, 1; Missouri, 6; Nebraska, 2; Tennessee, 1; Texas, 1; West Virginia, 1.

<sup>4</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>5</sup> See first 6 lines, Table 3, p. 1019.

## FOUNDRY AND MACHINE-SHOP PRODUCTS, NOT ELSEWHERE CLASSIFIED

**Description of the industry.**—This industry embraces the manufacture of products of boiler shops, foundries, and machine shops, for which special classifications are not maintained for census purposes. The foundry as ordinarily defined is an establishment which casts metal into various shapes, and the machine shop is an establishment operating machine tools; that is, power-driven tools used in cutting and shaping metals. Some of the establishments which employ foundry and machine-shop processes, however, specialize in the manufacture of specific classes of products; and in cases where the establishments thus specializing make all or the greater part of the products in question they are placed in specific industry classes designated according to the use or the nature of the products. On the other hand, many foundries and machine shops manufacture a great variety of products. Moreover, while certain establishments employing foundry and machine-shop processes are engaged wholly or mainly in the manufacture of well-defined classes of commodities, large quantities of similar commodities are made by other establishments which also manufacture products wholly different in character. It has been necessary, therefore, in order to avoid excessive overlapping among industries, to establish a very broad classification, "Foundry and machine-shop products, not elsewhere classified," which embraces, so far as practicable, those lines of manufacture which employ foundry and machine-shop processes but which can not be clearly segregated from one another. Nevertheless, despite its comprehensiveness, there is a great deal of overlapping between this classification and a number of others.

**Detailed statistics of products.**—Table 4, page 1026, shows separately, so far as is practicable from the reports received from the manufacturers, the value of the major classes of products manufactured in 1925. Industrial and other classes of machinery are the principal products of the industry, the value of the output in 1925 aggregating \$860,004,054. The total production of machinery by classes, including that made in the "Foundry and machine-shop products" and other industries, is treated separately in this report under the title of "Machinery." (See Tables 1 and 2, pp. 1031 and 1035.)

The output of steel, malleable-iron, and gray-iron castings manufactured for sale as such is shown by quantity and value for the United States as a whole and for States in Table 5, page 1027. These figures represent only castings produced for sale, and do not include data for the large quantity of castings made in foundry departments of establishments other departments of which use them as material in the manufacture of complete machinery and other products.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925**

Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925.....	8, 154	397, 838	\$590, 801, 237	\$10, 133, 942	\$883, 708, 235	\$2, 232, 985, 974	\$1, 349, 277, 739	1, 424, 259
1923.....	8, 531	448, 777	642, 431, 394	9, 677, 141	936, 231, 003	2, 337, 072, 775	1, 400, 841, 772	1, 234, 326
1921.....	9, 013	321, 363	612, 359, 408	7, 619, 908	653, 263, 807	1, 565, 526, 944	912, 163, 137	(*)
1919.....	10, 934	482, 767	622, 571, 129	6, 721, 830	948, 069, 381	2, 289, 250, 859	1, 341, 181, 478	1, 040, 265
1914 <sup>3</sup> .....	10, 640	362, 471	244, 146, 380	2, 666, 348	358, 121, 781	866, 544, 677	508, 422, 896	* 763, 821
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925.....	—4.4	—11.4	—8.0	4.7	—5.0	—4.5	—3.7	15.4
1921-1923.....	—5.3	39.6	55.8	27.0	43.3	49.3	53.6	.....
1921-1925.....	—9.5	23.8	43.3	33.0	35.3	42.6	47.9	.....
1914-1925.....	—23.4	9.8	142.0	280.1	146.8	157.7	165.4	86.5

<sup>1</sup> Including also cost of fuel, electric power, and mill supplies.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> These figures differ from the corresponding ones published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3, p. 1026.)

<sup>5</sup> Because of changes in classification, figures for 1914 not strictly comparable with those for later years.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR STATES, 1925

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925.....	397,838	376,880	384,145	390,803	395,934	398,400	399,698
1923.....	448,777	419,864	433,894	451,208	459,593	463,390	469,885
1921.....	321,363	384,084	363,261	353,088	338,548	327,069	315,150
1919.....	482,767	491,403	470,634	462,983	459,435	454,222	456,529
Alabama.....	2,349	2,195	2,217	2,364	2,304	2,350	2,428
Arizona.....	120	122	126	122	124	132	122
Arkansas.....	340	334	325	338	338	355	355
California.....	13,258	11,905	12,060	12,686	13,205	13,685	13,713
Colorado.....	1,372	1,302	1,300	1,346	1,331	1,364	1,435
Connecticut.....	16,980	15,531	15,811	15,945	16,210	16,679	16,735
Delaware.....	1,212	1,368	1,313	1,198	1,212	1,232	1,203
District of Columbia.....	91	82	79	91	91	96	98
Florida.....	822	796	806	799	801	807	808
Georgia.....	3,089	2,774	2,882	2,918	2,927	2,949	3,110
Idaho.....	122	123	117	113	122	119	125
Illinois.....	40,074	37,687	38,577	39,072	39,689	40,007	40,108
Indiana.....	18,248	16,987	17,296	17,102	17,616	18,009	18,409
Iowa.....	3,724	3,322	3,429	3,586	3,669	3,710	3,904
Kansas.....	2,398	2,279	2,281	2,366	2,316	2,371	2,411
Kentucky.....	1,983	1,925	1,882	1,880	1,818	1,806	1,900
Louisiana.....	1,576	1,429	1,444	1,513	1,600	1,563	1,668
Maine.....	968	971	984	967	952	957	954
Maryland.....	3,917	3,609	3,690	3,879	3,990	3,967	4,010
Massachusetts.....	19,541	19,225	19,429	19,687	19,583	19,552	19,649
Michigan.....	31,291	27,504	28,481	29,785	31,141	32,244	32,405
Minnesota.....	4,762	4,599	4,655	4,633	4,696	4,704	4,708
Mississippi.....	319	317	316	319	307	324	323
Missouri.....	8,057	7,371	7,591	7,877	8,085	8,170	8,091
Montana.....	319	314	319	309	322	333	343
Nebraska.....	532	476	518	540	558	546	535
Nevada and New Mexico.....	85	85	98	100	100	93	86
New Hampshire.....	1,788	1,833	1,829	1,834	1,805	1,788	1,787
New Jersey.....	19,149	18,229	18,299	18,618	18,731	19,001	19,311
New York.....	44,795	43,804	44,762	45,030	45,144	44,511	44,054
North Carolina.....	1,009	999	1,006	1,022	1,015	978	986
North Dakota.....	55	42	40	40	45	58	61
Ohio.....	57,870	53,961	55,331	56,741	57,548	57,733	57,975
Oklahoma.....	1,255	1,091	1,165	1,203	1,255	1,271	1,328
Oregon.....	1,870	1,775	1,842	1,880	1,956	1,903	1,880
Pennsylvania.....	54,172	53,756	54,323	54,638	54,719	54,403	54,098
Rhode Island.....	2,154	2,094	2,128	2,163	2,188	2,126	2,107
South Carolina.....	232	226	236	239	232	225	233
South Dakota.....	40	25	36	40	46	46	43
Tennessee.....	3,471	3,416	3,403	3,459	3,427	3,437	3,448
Texas.....	4,323	4,068	4,282	4,480	4,419	4,456	4,508
Utah.....	231	165	230	230	236	245	251
Vermont.....	721	698	705	708	711	686	713
Virginia.....	1,042	1,013	1,049	1,042	1,039	1,051	1,003
Washington.....	3,220	3,161	3,237	3,426	3,523	3,369	3,285
West Virginia.....	1,404	1,374	1,366	1,361	1,363	1,372	1,424
Wisconsin.....	21,465	20,446	20,828	21,092	21,402	21,593	21,542
Wyoming.....	23	22	22	22	23	24	25

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR STATES, 1925—Continued

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <sup>1</sup> .....	400,242	399,650	401,675	406,290	407,435	412,947
1923 <sup>1</sup> .....	470,328	465,074	453,440	441,979	431,548	425,124
1921 <sup>1</sup> .....	300,122	295,574	293,169	291,712	295,211	299,365
1919 <sup>1</sup> .....	471,149	482,050	491,802	503,709	518,850	530,438
Alabama.....	2,424	2,458	2,454	2,403	2,248	2,348
Arizona.....	120	112	110	110	116	127
Arkansas.....	345	349	334	334	335	335
California.....	13,772	13,690	13,791	13,817	13,353	13,418
Colorado.....	1,474	1,466	1,461	1,374	1,347	1,269
Connecticut.....	16,831	17,310	17,515	18,096	18,422	18,676
Delaware.....	1,158	1,112	1,131	1,163	1,199	1,258
District of Columbia.....	97	94	86	97	93	88
Florida.....	793	808	831	840	865	904
Georgia.....	3,271	3,409	3,230	3,185	3,168	3,246
Idaho.....	127	130	126	125	119	118
Illinois.....	40,412	40,304	40,680	41,286	41,317	41,743
Indiana.....	18,489	18,732	18,741	19,196	19,278	19,121
Iowa.....	3,841	3,846	3,801	3,866	3,848	3,868
Kansas.....	2,487	2,505	2,431	2,451	2,432	2,445
Kentucky.....	1,983	2,058	2,062	2,131	2,152	2,198
Louisiana.....	1,710	1,637	1,655	1,566	1,572	1,550
Maine.....	937	944	977	975	988	1,010
Maryland.....	4,157	4,148	3,973	3,839	3,818	3,922
Massachusetts.....	19,452	19,324	19,442	19,503	19,695	19,955
Michigan.....	31,905	31,744	32,050	32,662	32,520	33,045
Minnesota.....	4,738	4,848	4,896	4,875	4,864	4,929
Mississippi.....	330	315	317	316	314	324
Missouri.....	8,060	8,253	8,350	8,527	8,237	8,076
Montana.....	336	325	319	317	309	287
Nebraska.....	523	534	533	533	542	542
Nevada and New Mexico.....	82	78	74	73	75	70
New Hampshire.....	1,746	1,671	1,751	1,764	1,809	1,834
New Jersey.....	19,557	19,549	19,554	19,539	19,639	19,757
New York.....	43,901	43,452	44,502	45,477	46,075	46,826
North Carolina.....	963	1,007	1,017	1,025	1,038	1,046
North Dakota.....	71	66	62	60	59	54
Ohio.....	58,472	57,886	58,199	59,436	59,691	61,475
Oklahoma.....	1,410	1,347	1,367	1,272	1,187	1,168
Oregon.....	1,933	1,939	1,918	1,831	1,791	1,794
Pennsylvania.....	54,007	53,890	53,651	53,536	54,193	54,853
Rhode Island.....	2,110	2,089	2,114	2,212	2,207	2,307
South Carolina.....	219	232	235	228	243	244
South Dakota.....	42	35	35	37	40	51
Tennessee.....	3,415	3,558	3,545	3,493	3,506	3,547
Texas.....	4,655	4,668	4,365	4,115	3,942	3,914
Utah.....	237	232	230	245	231	242
Vermont.....	688	705	708	739	768	822
Virginia.....	1,041	1,016	1,046	1,050	1,072	1,083
Washington.....	3,188	3,089	3,012	3,133	3,067	3,155
West Virginia.....	1,434	1,413	1,412	1,444	1,427	1,458
Wisconsin.....	21,273	21,249	21,559	21,973	22,203	22,424
Wyoming.....	26	24	23	21	21	21

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 91.3; 1923, 89.3; 1921, 76; 1919 85.6.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919		
	Number	Capacity	Number	Capacity	Number	Capacity	
Prime movers, total.....	108, 134	<i>Horse-power</i> 1, 424, 259	87, 586	<i>Horse-power</i> 1, 234, 326	68, 027	<i>Horse-power</i> 1, 040, 265	
Steam engines.....	1, 425	198, 750	1, 922	277, 392	{	2, 428	267, 629
Steam turbines.....	111	59, 292				142	45, 437
Internal-combustion engines.....	795	39, 479				2, 158	53, 717
Water wheels and turbines.....	283	11, 881				<sup>2</sup> 238	<sup>2</sup> 13, 445
Electric motors driven by purchased current.....	105, 520	1, 114, 857	84, 440	900, 346	63, 061	660, 037	
Electric motors, total.....	133, 583	1, 458, 607	110, 920	1, 212, 486	88, 258	953, 795	
Driven by purchased current.....	105, 520	1, 114, 857	84, 440	900, 346	63, 061	660, 037	
Driven by current generated in establishment reporting.....	28, 063	343, 750	26, 480	312, 140	25, 197	293, 758	
Electric generators.....	1, 093	<i>Kilowatts</i> 467, 133	( <sup>3</sup> )	<i>Kilowatts</i> ( <sup>3</sup> )	( <sup>3</sup> )	<i>Kilowatts</i> ( <sup>3</sup> )	

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Includes data for a small number of water motors

<sup>3</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY CLASS AND VALUE: 1925

[This table covers only products manufactured by establishments classified in the "Foundry and machine-shop products" industry (see "Description of the industry," p. 1023), and does not include similar products made by establishments classified in other industries]

CLASS	Value
Total.....	\$2, 232, 985, 974
Boiler-shop products:	
Boilers (industrial).....	35, 881, 773
Smokestacks (iron and steel).....	4, 292, 623
Tanks (iron and steel).....	42, 857, 772
Other boiler-shop products.....	26, 233, 569
Castings: <sup>1</sup>	
Gray-iron.....	299, 420, 683
Malleable-iron.....	101, 348, 758
Steel.....	23, 357, 283
Other than iron and steel.....	5, 719, 536
Machinery: <sup>2</sup>	860, 004, 054
Bearings, ball and roller: <sup>3</sup>	73, 913, 159
Flexible metallic hose and tubing.....	3, 580, 747
Custom work and repairs.....	127, 758, 548
All other products.....	628, 617, 469

<sup>1</sup> Castings made in the "Foundry and machine-shop products" industry only. For total production of castings manufactured for sale as such, see Table 5, p. 1027.

<sup>2</sup> Machinery made by establishments classified in the "Foundry and machine-shop products" industry only. For statistics showing production of machinery, by classes, for all industries so far as separately reported, see Table 1, p. 1031.

<sup>3</sup> Ball and roller bearings made by establishments classified in the "Foundry and machine-shop products" industry only. The value of the total output of ball and roller bearings for all industries was \$99,418,137.

TABLE 5.—GRAY-IRON, MALLEABLE-IRON, AND STEEL CASTINGS—PRODUCTION, BY QUANTITY AND VALUE, BY STATES: 1925

[This table presents statistics showing the production of gray-iron, malleable-iron, and steel castings manufactured for sale as such by establishments classified in the "Foundry and machine-shop products" industry and all other industries which reported the production of iron and steel castings. It does not cover the large quantity of castings made in foundry departments of establishments which use all or some of their castings in the further manufacture of stoves, furnaces, machinery, and other finished products. No comparable data were compiled for prior census years]

STATE	GRAY IRON		MALLEABLE IRON		STEEL <sup>1</sup>	
	Long tons	Value	Long tons	Value	Long tons	Value
United States.....	3,850,470	\$321,251,079	735,627	\$106,870,895	130,411	\$23,894,740
Alabama.....	58,419	3,682,583			( <sup>2</sup> )	( <sup>2</sup> )
California.....	114,676	9,935,029	4,651	1,041,614	7,958	1,398,957
Colorado.....	84,494	3,730,154				
Connecticut.....	58,271	8,678,926	13,412	3,563,991	( <sup>2</sup> )	( <sup>2</sup> )
Georgia.....	65,289	3,289,818			( <sup>2</sup> )	( <sup>2</sup> )
Illinois.....	484,377	33,161,539	116,381	16,799,669	24,214	4,168,904
Indiana.....	239,721	16,778,737	60,605	9,246,059	( <sup>2</sup> )	( <sup>2</sup> )
Iowa.....	62,233	4,501,447	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Kansas.....	65,456	3,163,204	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Kentucky.....	24,191	1,585,209	( <sup>2</sup> )	( <sup>2</sup> )		
Maryland.....	70,692	4,429,851	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Massachusetts.....	155,402	16,064,504	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Michigan.....	336,928	34,370,349	109,340	16,232,457	6,460	1,363,342
Minnesota.....	75,734	4,414,597	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Missouri.....	110,719	7,904,751	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
New Jersey.....	144,488	15,787,849	7,687	1,895,317	( <sup>2</sup> )	( <sup>2</sup> )
New York.....	311,596	27,057,788	67,660	10,963,200	( <sup>2</sup> )	( <sup>2</sup> )
Ohio.....	516,734	48,394,597	102,908	16,279,900	27,426	4,880,936
Pennsylvania.....	462,384	40,956,229	136,047	13,655,010	18,583	3,832,229
Rhode Island.....	22,883	3,006,417	( <sup>2</sup> )	( <sup>2</sup> )		
Tennessee.....	54,244	2,484,443	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Virginia.....	47,533	2,261,727	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Washington.....	37,864	3,002,669			( <sup>2</sup> )	( <sup>2</sup> )
West Virginia.....	17,006	1,812,514	( <sup>2</sup> )	( <sup>2</sup> )		
Wisconsin.....	64,439	7,798,933	81,368	11,378,065	10,630	1,950,471
All other States <sup>3</sup> .....	164,697	12,997,215	35,568	5,815,613	35,140	6,299,841

<sup>1</sup> Does not include 937,712 tons of direct steel castings valued at \$144,414,553 manufactured for sale and interplant transfer by steel works and rolling mills. (See report for the "Steel works and rolling mills" industry.)

<sup>2</sup> Included in "All other States" to avoid the possibility of disclosing operations of individual establishments.

<sup>3</sup> Certain of these States outranked some of those shown separately.

TABLE 6.—GENERAL STATISTICS, BY STATES: 1925

STATE	Num- ber of estab- lish- ments	PERSONS ENGAGED IN THE INDUSTRY				Horse- power	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufac- ture 1
		Total	Pro- pri- etors and firm mem- bers	Salaried officers and em- ployees	Wage earners (average number)							
United States.....	8, 154	481, 212	4, 457	78, 917	397, 838	1, 424, 259	\$3187,230,368	\$590, 801, 237	\$10, 133, 942	\$883, 708, 235	\$2, 232, 985, 974	\$1, 349, 277, 739
Alabama.....	55	2, 670	38	283	2, 349	6, 926	615, 705	2, 846, 548	22, 284	4, 376, 604	10, 961, 307	6, 584, 703
Arizona.....	7	135	3	12	120	238	27, 270	157, 126	75	140, 493	410, 582	270, 089
Arkansas.....	30	421	25	56	340	1, 266	120, 883	470, 581	458	821, 614	1, 888, 611	1, 096, 697
California.....	550	16, 425	410	2, 757	13, 253	51, 486	6, 195, 646	21, 386, 791	870, 471	34, 520, 035	80, 633, 577	46, 133, 542
Colorado.....	62	1, 647	39	236	1, 372	5, 562	624, 771	1, 865, 234	8, 060	3, 565, 448	8, 084, 662	4, 519, 204
Connecticut.....	184	19, 861	51	2, 830	16, 980	64, 730	6, 953, 422	24, 213, 740	346, 716	26, 665, 062	83, 791, 959	57, 056, 897
Delaware.....	15	1, 509	5	283	1, 212	4, 292	621, 166	1, 535, 644	336	2, 523, 094	5, 418, 616	2, 865, 522
District of Columbia.....	9	1, 119	7	21	91	206	47, 322	141, 190	14, 100	154, 551	463, 622	309, 071
Florida.....	37	1, 000	32	146	822	1, 469	355, 113	1, 033, 300	51, 172	1, 696, 178	3, 974, 736	2, 278, 558
Georgia.....	66	3, 519	25	405	3, 089	5, 937	938, 717	3, 265, 659		5, 671, 885	13, 716, 473	8, 044, 588
Idaho.....	14	159	11	26	122	355	51, 893	158, 259	1, 510	90, 604	482, 059	391, 455
Illinois.....	808	49, 200	493	8, 093	40, 074	123, 933	22, 176, 183	62, 115, 629	780, 604	92, 988, 061	241, 024, 789	148, 036, 724
Indiana.....	294	21, 704	148	3, 308	18, 248	70, 088	7, 948, 426	25, 356, 712	434, 161	39, 172, 454	101, 969, 155	62, 826, 701
Iowa.....	156	4, 653	98	831	3, 724	14, 225	1, 710, 332	4, 993, 043	10, 209	8, 808, 623	21, 345, 826	12, 537, 203
Kansas.....	76	2, 822	57	367	2, 398	8, 406	683, 141	3, 143, 711	11, 726	6, 596, 253	13, 085, 044	6, 485, 761
Kentucky.....	60	2, 458	24	451	1, 983	5, 719	1, 013, 640	2, 570, 757	121, 640	5, 004, 271	10, 760, 159	5, 755, 888
Louisiana.....	63	1, 870	23	271	1, 576	4, 912	548, 758	1, 942, 666	15, 252	2, 328, 397	5, 972, 719	3, 644, 322
Maine.....	33	1, 132	21	143	968	4, 031	365, 657	1, 203, 504	25, 784	1, 026, 888	3, 088, 623	2, 061, 735
Maryland.....	97	4, 814	71	826	3, 917	16, 874	1, 945, 227	3, 107, 916	19, 469	12, 116, 735	23, 257, 362	11, 140, 627
Massachusetts.....	500	23, 555	257	3, 757	19, 541	50, 800	9, 653, 134	28, 919, 791	191, 622	31, 046, 164	90, 638, 434	59, 592, 270
Michigan.....	429	36, 736	182	5, 263	31, 291	89, 039	12, 925, 872	48, 660, 530	501, 083	53, 109, 056	162, 545, 298	104, 436, 242
Minnesota.....	147	5, 919	99	1, 658	4, 762	12, 987	2, 497, 798	6, 411, 208	65, 682	11, 697, 812	28, 234, 724	16, 576, 912
Mississippi.....	17	375	10	46	319	755	110, 739	379, 780	1, 519	345, 147	1, 077, 743	732, 596
Missouri.....	225	10, 174	178	1, 939	8, 097	24, 157	4, 467, 883	11, 782, 860	297, 302	21, 716, 738	49, 420, 214	27, 703, 476
Montana.....	11	363	1	43	319	1, 490	86, 209	496, 465	360	581, 672	1, 359, 916	778, 244

Nebraska.....	36	699	22	145	532	2,257	270,653	720,004	13,642	1,628,307	3,159,477	1,531,170
Nevada and New Mexico.....	4	99	32	13	1,788	4,987	694,065	101,549	32,747	173,943	340,162	104,219
New Hampshire.....	345	2,173	149	4,646	19,749	65,400	10,972,178	2,574,368	1,257,701	2,434,070	8,617,085	6,183,015
New Jersey.....	393	23,944	412	8,613	44,736	130,431	20,064,222	31,012,980	960,717	36,930,050	110,202,345	73,272,295
New York.....	53	53,820	44	162	1,009	2,455	355,482	69,229,731	1,257,701	89,460,001	257,655,999	168,195,398
North Carolina.....	5	1,215	3	11	1,009	2,455	355,482	1,286,122	3,214	1,448,864	4,050,441	2,901,577
North Dakota.....	863	68,348	386	10,092	57,876	260,138	20,130	86,619	1,836,433	117,163	294,646	177,483
Ohio.....	63	1,606	30	321	1,255	3,573	25,643,089	87,461,615	5,636	149,347,752	345,222,837	195,875,085
Oklahoma.....	94	2,306	61	375	1,870	9,576	831,208	1,947,978	104,813	3,907,167	9,006,214	5,069,047
Oregon.....	895	67,324	450	12,702	54,172	248,235	902,989	2,786,820	104,813	4,936,917	10,581,996	5,645,079
Pennsylvania.....	49	2,590	26	410	2,154	8,992	27,981,830	78,086,581	984,608	134,069,597	307,683,851	173,624,254
Rhode Island.....	19	284	13	39	2,232	8,556	923,067	3,079,467	16,316	3,965,840	10,200,701	6,234,861
South Carolina.....	5	54	3	11	40	242	18,951	37,731	1,045	118,046	597,924	411,021
South Dakota.....	68	3,972	32	469	3,471	12,629	1,063,495	3,699,763	3,002	7,113,109	14,877,681	7,764,572
Tennessee.....	124	5,177	87	767	4,323	15,420	1,820,406	5,427,391	130,702	12,007,268	26,569,634	14,562,366
Texas.....	13	279	6	42	231	1,437	85,680	374,820	12,132	343,897	942,019	598,122
Utah.....	24	846	7	118	721	2,629	260,921	975,895	999	1,065,949	2,875,358	1,899,409
Virginia.....	57	1,247	50	155	1,042	4,127	318,249	1,236,340	10,273	1,819,208	4,427,421	2,608,213
Washington.....	189	3,953	154	579	3,220	13,714	1,500,788	4,964,906	261,144	6,456,624	16,065,398	10,208,474
West Virginia.....	72	1,825	37	384	1,404	8,865	1,045,483	1,982,981	261,212	4,438,182	9,896,365	5,467,223
Wisconsin.....	293	26,063	143	4,455	21,465	54,716	10,270,095	32,389,598	646,382	49,912,638	125,063,270	75,156,582
Wyoming.....	5	28	1	4	23	223	10,120	42,342	98,371	98,371	194,041	96,270

<sup>1</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>2</sup> Not including 1,409 salaried officers and employees of central administrative offices, with salaries aggregating \$4,732,283. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals of 80,416 salaried officers and employees and \$191,962,651.



## MACHINERY

**Scope of report.**—This section is not an industry report (see "Classification by industries," p. 6) but is merely a special report giving statistics for the broad group of products covered by the general designation "Machinery." These products are manufactured principally in the following-named industries: "Agricultural implements"; "Aircraft and parts"; "Cash registers and calculating machines"; "Dairymen's supplies; creamery, cheese-factory, and butter-factory equipment; and poultrymen's and apiarists' supplies"; "Electrical machinery, apparatus, and supplies"; "Engines and water wheels"; "Foundry and machine-shop products, not elsewhere classified"; "Gas machines and gas and water meters"; "Locomotives, not made in railroad repair shops"; "Metal-working machinery (including machine tools)"; "Motor cycles, bicycles, and parts"; "Motor vehicles, not including motor cycles"; "Photographic apparatus and materials"; "Pumps and pumping equipment"; "Sewing machines, cases, and attachments"; "Textile machinery and parts"; "Typewriters and supplies"; "Washing machines, clothes wringers, driers, and ironing machines, for domestic use"; "Windmills and windmill towers."

**Definition of "Machinery."**—The term "Machinery" is here used in its popular rather than its exact sense. Strictly speaking, the term applies to certain very simple mechanical contrivances, such as a pair of pliers, a rope and pulley, or a windlass, and also to various more complicated devices, such as timepieces and scientific instruments, which are not customarily referred to as machines and which are not included in the machinery covered by the tables herewith. Locomotives, motor-propelled steerable vehicles, and bicycles are included. Railway cars and horse-drawn vehicles are excluded, but the value of the motors used in electric cars is included in the item "Motors (not including automobile starters)," in the "Electrical machinery" group. The item "Engines (steam or internal-combustion), water wheels, and parts" includes, of course, the value of the boilers of traction and portable steam engines, but does not include the value of steam boilers made for sale as separate units.

**Description of tables.**—Table 1 presents statistics for the values of the principal classes of machinery manufactured in the United States during each of the last four census years, and Table 2 shows, for 1925, the corresponding values for leading States, so far as statistics can be given without disclosing operations of individual establishments. For the years prior to 1925 no comparable data are available for a number of items; and, consequently, no totals for the earlier census years are shown in Table 1.

The figures in these tables represent the values of complete machines only, except in a few cases where it was impossible to separate the values of complete machines and of parts, and thus there is little duplication due to the inclusion of values of parts made and sold by certain establishments to other establishments which used them as materials in the manufacture of complete machines.

**Difference between values in Tables 1 and 2 and values of products in industry tables.**—The differences between the values of certain classes of machinery—for example, machine tools and textile machinery and parts—as given in Tables 1 and 2, and the total values of products of the industries of which these classes of machinery are the primary products, are due to the inclusion in these tables and the exclusion from the industry totals of data for the specified classes of machinery made as secondary products by establishments engaged primarily in other lines of manufacture, and to the exclusion from Tables 1 and 2 and the inclusion in the industry totals of data for miscellaneous commodities made as secondary products by establishments classified in the industries in question.

To illustrate: The total value of textile machinery and parts, \$109,354,126 (Table 1), includes \$1,275,944, representing the value of textile machinery and parts made as secondary products by establishments in other industries (Table 4, p. 1056), but does not include \$13,575,142, representing the value of repair work and contract work and of "Miscellaneous products" of the "Textile machinery and parts" industry (Table 4, p. 1056), and thus is smaller by \$12,299,198 than the industry total, \$121,653,324.

TABLE 1.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR THE UNITED STATES: 1919 TO 1925

CLASS AND CENSUS YEAR	Value	CLASS AND CENSUS YEAR	Value
Total, 1925 <sup>1</sup> .....	\$5, 129, 414, 553	Cement and concrete machinery:	
Adding and calculating machines and parts:		1925 <sup>1</sup> .....	\$25, 216, 391
1925.....	51, 289, 428	Cement-making machinery—	
1923.....	51, 995, 000	1925.....	5, 532, 083
1921.....	30, 015, 966	1923 <sup>1</sup> .....	3, 679, 696
1919.....	53, 993, 200	Cement and concrete-block machinery—	
Adding machines, 1925 <sup>1</sup> .....	33, 829, 501	1925 <sup>1</sup> .....	1, 460, 515
Calculating machines, 1925 <sup>1</sup> .....	14, 867, 762	Concrete mixers—	
Adding and calculating machine parts, 1925 <sup>1</sup> .....	2, 592, 165	1925.....	12, 619, 755
Addressing and mailing machines:		1923 <sup>1</sup> .....	13, 602, 453
1925.....	9, 034, 513	Other cement and concrete machinery, 1925 <sup>1</sup> .....	5, 604, 038
1923 <sup>1</sup> .....	5, 768, 936	Check-writing machines:	
Agricultural machinery:		1925.....	2, 092, 566
1925.....	85, 470, 736	1923 <sup>1</sup> .....	2, 488, 714
1923.....	82, 130, 319	Clay-working machinery (brick, pottery, etc.):	
1921.....	58, 135, 605	1925.....	5, 293, 340
1919.....	94, 080, 086	1923.....	5, 508, 454
Harvesting and haying machinery—		1921.....	3, 771, 677
1925.....	43, 843, 650	1919.....	3, 180, 505
1923.....	41, 781, 372	Clothing-pressing machines:	
1921.....	28, 258, 511	1925.....	8, 408, 982
1919.....	54, 224, 740	1923 <sup>1</sup> .....	6, 282, 206
Machinery for preparing crops for market or use—		Coffee roasting and grinding machines:	
1925.....	27, 917, 902	1925.....	1, 922, 492
1923.....	30, 761, 122	1923 <sup>1</sup> .....	1, 339, 189
1921.....	21, 436, 405	Condensers:	
1919.....	22, 364, 943	1925.....	4, 938, 030
Planting machinery—		1923 <sup>1</sup> .....	4, 588, 039
1925.....	13, 709, 184	Confectionery and ice-cream machinery:	
1923.....	9, 587, 825	1925.....	5, 143, 470
1921.....	8, 440, 689	1923.....	5, 028, 882
1919.....	17, 490, 403	1921.....	5, 156, 507
Aircraft:		1919.....	9, 341, 394
1925.....	8, 102, 106	Conveying machinery:	
1923.....	9, 076, 806	1925.....	30, 688, 471
1921.....	5, 099, 430	1923 <sup>1</sup> .....	26, 203, 332
1919.....	9, 705, 138	Bucket type, 1925 <sup>1</sup> .....	14, 717, 245
Bakers' machinery and equipment:		Belt type, 1925 <sup>1</sup> .....	8, 601, 059
1925.....	17, 212, 093	Other types, 1925 <sup>1</sup> .....	7, 370, 167
1923.....	14, 450, 978	Cotton gins:	
1921.....	10, 559, 928	1925.....	12, 807, 969
1919.....	9, 358, 609	1923.....	7, 175, 031
Bake ovens, 1925 <sup>1</sup> .....	6, 855, 158	1921.....	2, 721, 290
Other bakers' equipment, 1925 <sup>1</sup> .....	10, 356, 935	1919.....	10, 175, 936
Baling presses:		Cranes (including hoists and derricks):	
1925.....	1, 196, 332	1925.....	43, 935, 663
1923 <sup>1</sup> .....	1, 585, 156	1923.....	42, 196, 523
Blowers and fans:		1921.....	20, 445, 484
1925.....	16, 210, 436	1919.....	52, 534, 022
1923.....	14, 385, 684	Locomotive, 1925 <sup>1</sup> .....	13, 161, 678
1921.....	12, 517, 507	Stationary, 1925 <sup>1</sup> .....	11, 601, 245
1919.....	12, 141, 346	Traveling, 1925 <sup>1</sup> .....	19, 172, 740
Bookbinding machinery:		Dairy, cheese-factory, and butter-factory machinery:	
1925.....	3, 389, 126	1925.....	15, 176, 930
1923 <sup>1</sup> .....	1, 591, 456	1923.....	16, 485, 702
Bottling machinery:		1921.....	17, 759, 261
1925.....	10, 138, 835	Milking machine units—	
1923.....	5, 969, 264	1925.....	1, 117, 762
1921.....	6, 641, 731	1923 <sup>1</sup> .....	940, 753
1919.....	10, 468, 479	Cream separators—	
Canning machinery:		1925.....	7, 838, 900
1925.....	9, 765, 691	1923 <sup>1</sup> .....	7, 726, 547
1923.....	9, 690, 604	Other dairy, cheese-factory, and butter-factory machinery—	
1921 <sup>1</sup> .....	5, 138, 964	1925.....	6, 220, 268
Cars and trucks, industrial and mining:		1923 <sup>1</sup> .....	7, 818, 402
1925.....	24, 266, 666	Dish-washing machines:	
1923 <sup>1</sup> .....	17, 918, 930	1925.....	1, 473, 509
Industrial, 1925 <sup>1</sup> .....	17, 739, 242	1923 <sup>1</sup> .....	1, 066, 468
Mining, 1925 <sup>1</sup> .....	6, 527, 424	Dredging and excavating machinery, including power shovels:	
Cash registers and parts:		1925.....	45, 841, 058
1925.....	42, 326, 496	1923.....	40, 306, 057
1923.....	44, 381, 645		
1921.....	23, 943, 697		
1919.....	31, 574, 453		

See footnotes at end of table.

TABLE 1.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR THE UNITED STATES: 1919 TO 1925—Continued

CLASS AND CENSUS YEAR	Value	CLASS AND CENSUS YEAR	Value
Dredging and excavating machinery, including power shovels—Con.		Hydraulic machinery (other than for dredging):	
1921.....	\$17,848,733	1925.....	\$4,937,916
1919.....	21,562,121	1923 <sup>1</sup> .....	3,870,666
Dredging machinery—		Hydraulic rams, 1925 <sup>1</sup> .....	217,629
1925 <sup>1</sup> .....	4,452,520	Other, 1925 <sup>1</sup> .....	4,720,287
Hydraulic—		Incandescent-lamp-making machinery:	
1925 <sup>1</sup> .....	2,684,219	1925.....	4,255,464
Other dredging machinery—		1923 <sup>1</sup> .....	1,534,676
1925 <sup>1</sup> .....	1,768,301	Laundry machinery:	
Excavating machinery—		1925.....	24,198,059
1925 <sup>1</sup> .....	41,388,538	1923.....	19,077,439
Draglines or power scrapers—		1921.....	12,982,709
1925 <sup>1</sup> .....	9,005,506	1919.....	13,891,288
Power shovels—		Lawn mowers:	
1925.....	26,609,195	1925.....	8,046,961
1923.....	23,683,862	1923.....	8,258,489
1921.....	12,857,828	1921.....	6,401,192
1919.....	12,453,763	1919.....	3,777,233
Trench excavators—		Hand, 1925 <sup>1</sup> .....	7,117,169
1925 <sup>1</sup> .....	3,129,920	Power, 1925 <sup>1</sup> .....	929,792
Other excavating machinery—		Leather-working machinery (other than shoe machinery):	
1925 <sup>1</sup> .....	2,643,917	1925.....	2,222,168
Electrical machinery:		1923.....	2,574,920
1925.....	134,513,423	1921.....	2,525,761
1923.....	128,384,498	1919.....	4,691,431
1921.....	89,800,279	Locomotives (steam, electric, and internal-combustion): <sup>6</sup>	
1919.....	112,422,481	1925.....	58,359,274
Generators <sup>1</sup> —		1923.....	194,673,098
1925.....	23,215,976	1921 <sup>1</sup> .....	90,110,725
1923.....	22,743,565	Manifolding machines (mimeographs, multigraphs, etc.):	
1921.....	18,436,081	1925.....	3,883,803
1919.....	19,307,735	Metal-working machinery, including machine tools (see Table 4, p. 1043):	
Rotating converting apparatus—		1925 <sup>1</sup> .....	138,812,149
1925.....	11,135,049	Machine tools—	
1923.....	10,277,180	1925.....	91,459,403
1921.....	* 6,311,458	1923 <sup>1</sup> .....	89,964,059
1919.....	* 4,851,404	Metal-working machinery, other than machine tools—	
Motors (not including electric fans nor starter motors for motor vehicles)—		1925 <sup>1</sup> .....	47,352,746
1925.....	100,162,398	Meters, gas and water:	
1923.....	95,363,753	1925.....	24,501,845
1921.....	65,052,740	1923.....	23,397,383
1919.....	88,263,342	1921.....	18,181,176
Elevators and elevator machinery:		1919.....	27,764,884
1925.....	47,429,964	Reported separately as to kind—	
1923.....	52,516,091	Gas meters, 1925 <sup>1</sup> .....	9,462,122
1921.....	40,931,295	Water meters, 1925 <sup>1</sup> .....	12,614,910
1919.....	70,187,296	Reported as gas and water meters, 1925 <sup>1</sup> .....	2,424,813
Passenger, 1925 <sup>1</sup> .....	24,624,682	Mining machinery (other than oil-well machinery):	
Freight, 1925 <sup>1</sup> .....	22,805,282	1925.....	34,827,448
Engines (steam or internal-combustion), water wheels, and parts: <sup>4</sup>		1923.....	47,589,778
1925.....	317,254,544	1921.....	30,290,171
1923.....	266,039,760	1919.....	51,243,489
1921.....	186,487,954	Motion-picture cameras and projectors:	
1919.....	501,673,502	1925.....	4,620,392
Flour-mill and grain-mill machinery:		1923.....	2,631,407
1925.....	7,945,924	1921.....	2,869,131
1923.....	9,083,777	1919.....	3,605,591
1921 <sup>1</sup> .....	8,663,327	Motor cycles and bicycles:	
Gas machines and apparatus:		1925.....	15,906,223
1925.....	7,527,864	1923.....	20,752,070
1923.....	7,243,205	1921.....	12,657,100
1921.....	4,553,782	1919.....	28,886,798
1919.....	9,823,044	Motor cycles—	
Glass-making machinery:		1925.....	8,875,657
1925.....	2,665,856	1923.....	10,025,170
1923.....	2,651,368	1921.....	6,438,706
1921.....	4,083,121	1919.....	16,196,128
1919.....	3,316,139		
Hat-making machinery:			
1925.....	522,284		
1923 <sup>1</sup> .....	750,869		

See footnotes at end of table.

TABLE 1.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR THE UNITED STATES: 1919 TO 1925—Continued

CLASS AND CENSUS YEAR	Value	CLASS AND CENSUS YEAR	Value
Motor cycles and bicycles—Contd.		Pneumatic machinery (other than pneumatic tools)—Continued.	
Bicycles—		Air compressors—	
1925.....	\$7,030,566	1925.....	\$29,472,834
1923.....	10,726,900	1923.....	27,762,309
1921.....	6,218,394	1921.....	15,728,629
1919.....	12,690,670	1919.....	18,650,074
Motor vehicles, except motor cycles:		Other pneumatic machinery—	
1925.....	2,946,821,212	1925 <sup>1</sup> .....	1,109,278
1923.....	2,611,734,958	Printing machinery:	
1921.....	1,326,119,662	1925.....	69,216,683
1919.....	1,736,818,235	1923.....	68,629,762
Passenger vehicles—		1921.....	54,870,399
1925.....	2,527,575,450	1919.....	53,324,973
1923.....	2,277,777,450	Presses—	
1921.....	1,134,360,475	1925.....	36,034,478
1919.....	1,327,559,123	1923.....	30,868,907
Business vehicles—		1921.....	22,368,406
1925.....	287,243,212	1919.....	18,433,839
1923.....	222,419,517	Typesetting machines—	
1921.....	99,008,613	1925.....	23,580,512
1919.....	213,703,042	1923.....	27,087,773
Government (Federal, State, county, and municipal) vehicles—		1921.....	19,650,016
1925.....	10,486,267	1919.....	14,878,337
1923.....	10,051,776	Other printing machinery—	
1921.....	9,457,826	1925.....	9,601,693
1919.....	13,619,331	1923.....	10,673,082
Chassis—		1921.....	12,851,977
1925.....	121,516,283	1919.....	20,012,977
1923.....	101,486,215	Pumps and pumping equipment, including parts and attachments. (See Table 4, p. 1051):	
1921.....	83,292,748	1925.....	121,299,431
1919.....	181,936,739	1923.....	92,514,688
Oil-mill machinery, cottonseed and other:		1921.....	69,255,176
1925.....	4,132,329	1919.....	66,456,444
1923.....	3,036,625	Refrigerating and ice-making machinery:	
1921 <sup>1</sup> .....	1,472,318	1925.....	862,592,637
Cottonseed, 1925 <sup>1</sup> .....	1,651,967	1923.....	36,541,766
Other oil-mill machinery, 1925 <sup>1</sup> .....	2,480,362	1921.....	33,174,126
Oil-well machinery:		1919.....	30,667,050
1925.....	47,299,105	Refrigerating machinery (other than ice-making)—	
1923.....	52,158,398	1925.....	847,297,003
1921.....	27,415,031	1923.....	19,297,870
1919.....	28,351,371	1921.....	18,368,252
Ore crushers:		1919.....	15,002,314
1925.....	3,251,737	Ice-making machinery—	
1923.....	4,861,504	1925.....	15,295,634
1921.....	3,322,306	1923.....	17,243,896
1919.....	2,367,357	1921.....	14,805,874
Packaging machines:		1919.....	15,664,786
1925.....	4,387,170	Road-making machinery:	
1923 <sup>1</sup> .....	3,484,463	1925.....	26,296,964
Packing-house machinery:		1923.....	24,264,375
1925.....	5,370,212	1921.....	17,858,209
1923.....	5,441,485	1919.....	15,777,652
1921 <sup>1</sup> .....	4,133,174	Road graders, 1925 <sup>1</sup> .....	12,737,625
Meat-packing, 1925 <sup>1</sup> .....	4,249,140	Road rollers, 1925 <sup>1</sup> .....	4,581,644
Other packing-house machinery, 1925 <sup>1</sup> .....	1,121,072	Stone crushers, 1925 <sup>1</sup> .....	2,436,732
Paint-making machinery:		Other road-making machinery, 1925 <sup>1</sup> .....	6,540,963
1925.....	1,212,683	Rubber-working machinery:	
1923 <sup>1</sup> .....	733,128	1925.....	10,164,497
Paper-box machinery:		1923.....	6,849,343
1925 <sup>1</sup> .....	4,644,800	1921.....	8,003,103
Paper-mill and pulp-mill machinery:		1919.....	17,001,919
1925.....	21,208,761	Scales and balances:	
1923.....	18,735,832	1925.....	23,690,827
1921.....	31,580,944	1923.....	21,835,503
1919.....	27,420,666	1921.....	15,884,770
Pharmaceutical machinery:		1919.....	20,641,038
1925.....	964,807	Sewing machines, cases, cabinets, attachments, and parts:	
1923 <sup>1</sup> .....	820,692	1925.....	45,130,777
Photo-engraving machinery:		1923.....	42,993,312
1925.....	357,341	1921.....	35,608,297
1923 <sup>1</sup> .....	555,554	1919.....	57,938,387
Pneumatic machinery (other than pneumatic tools):			
1925 <sup>1</sup> .....	30,582,112		

See footnotes at end of table.

TABLE 1.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR THE UNITED STATES: 1919 TO 1925—Continued

CLASS AND CENSUS YEAR	Value	CLASS AND CENSUS YEAR	Value
Sewing machines, cases, cabinets, attachments, and parts—Con.		Typewriters and parts (see Table 4, p. 1061):	
Sewing machines, 1925 <sup>1</sup>	\$35,633,568	1925.....	\$50,189,986
Cases, cabinets, and attachments, 1925 <sup>1</sup>	7,736,529	1923.....	39,520,680
Sewing-machine parts, 1925 <sup>1</sup>	1,760,680	1921.....	31,971,636
Shoe machinery:		1919.....	43,313,319
1925.....	11,769,137	Vacuum cleaners:	
1923.....	10,663,081	1925.....	40,285,149
1921.....	9,481,791	1923.....	36,869,603
1919.....	16,260,941	1921.....	21,726,271
Slicing machines:		1919.....	21,462,014
1925.....	4,860,190	Washing machines, clothes wringers, driers, and ironing machines, for domestic use:	
1923 <sup>1</sup> .....	3,539,072	1925.....	70,239,872
Slot-vending machines:		1923.....	57,550,706
1925.....	4,202,106	1921.....	32,443,918
1923.....	3,776,560	1919.....	42,895,929
1921.....	2,465,887	Washing machines, 1925 <sup>1</sup>	61,861,881
1919.....	1,646,231	Ironing machines, 1925 <sup>1</sup>	3,747,426
Stokers, mechanical:		Wringers and driers, 1925.....	4,630,565
1925.....	9,419,786	Well-drilling machinery, other than oil-well machinery:	
1923.....	14,095,224	1925.....	1,842,821
1921.....	7,160,807	1923.....	1,073,823
1919.....	4,280,236	1921.....	1,353,482
Stone-working machinery:		1919.....	2,566,668
1925.....	1,735,826	Windmills and windmill towers:	
1923 <sup>1</sup> .....	1,849,046	1925.....	5,682,127
Sugar-mill machinery:		1923.....	4,635,562
1925.....	8,643,232	1921.....	3,953,012
1923.....	9,112,029	Woodworking machinery:	
1921.....	12,074,591	1925.....	39,619,735
1919.....	14,847,346	1923.....	44,447,167
Textile machinery and parts (see Table 4, p. 1056):		1921.....	25,681,963
1925.....	109,354,126	1919.....	36,763,375
1923.....	127,406,348	Reported separately as to class—	
1921.....	115,166,967	Sawmill machinery, 1925 <sup>1</sup> .....	9,862,539
1919.....	118,044,421	Planing - mill machinery, 1925 <sup>1</sup> .....	6,632,546
Tobacco - manufacturing machinery:		Other woodworking machinery, 1925 <sup>1</sup> .....	15,381,241
1925.....	3,818,196	Reported as woodworking machinery only, 1925 <sup>1</sup> .....	7,743,409
1923 <sup>1</sup> .....	3,647,400		
Transmission machinery:			
1925.....	15,350,289		
1923 <sup>1</sup> .....	11,358,631		

<sup>1</sup> No comparable data for prior years. (See "Description of tables," p. 1030.)<sup>2</sup> Reported as "Cranes, including hoists and derricks" in 1925, and as "Cranes" in 1923, 1921, and 1919.<sup>3</sup> Not including automotive generators and generators for self-contained power and lighting outfits.<sup>4</sup> Motor-generator sets and dynamotors only.<sup>5</sup> Not including value of steam boilers made for sale as separate units.<sup>6</sup> For 1925, 1923, and 1921, complete steam, internal-combustion, and electric locomotives; for 1919, steam locomotives and parts, and miscellaneous products made by establishments in locomotive industry.<sup>7</sup> Not strictly comparable with figures for 1925; includes power pumps and equipment only for 1923, 1921, 1919, and pumps (hand and power) and pumping equipment of all kinds for 1925.<sup>8</sup> Includes mechanical refrigerating units for domestic and commercial use and also refrigerators when sold complete with mechanical units.

TABLE 2.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR LEADING STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the States not shown, or shown in combination, however, reported larger values of specified items than some of the States shown separately]

CLASS AND STATE	Value	CLASS AND STATE	Value
Total.....	\$5, 129, 414, 553	Canning machinery.....	\$9, 765, 691
Adding and calculating machines and parts.....	51, 289, 428	New York.....	3, 780, 841
Adding machines.....	33, 829, 501	California.....	1, 732, 082
Calculating machines.....	14, 867, 762	Illinois and Wisconsin.....	1, 600, 834
Illinois and Ohio.....	5, 148, 965	Washington.....	792, 611
New York.....	2, 674, 976	Cars and trucks, industrial and mining.....	24, 266, 666
Adding and calculating machine parts.....	2, 592, 165	Industrial.....	17, 739, 242
Addressing and mailing machines.....	9, 034, 513	Ohio.....	5, 248, 710
Agricultural machinery.....	85, 470, 736	Pennsylvania.....	3, 395, 374
Harvesting and haying machinery.....	43, 843, 650	Michigan.....	2, 700, 035
Illinois.....	33, 231, 423	Illinois.....	2, 179, 926
New York.....	1, 655, 263	Connecticut and New York.....	1, 808, 748
Iowa.....	1, 382, 105	Massachusetts.....	996, 451
Ohio.....	485, 694	Indiana.....	150, 970
Missouri.....	307, 603	Mining.....	6, 527, 424
Indiana.....	150, 904	Pennsylvania.....	2, 598, 087
Machinery for preparing crops for market or use.....	27, 917, 902	Alabama and Tennessee.....	1, 401, 460
Illinois.....	4, 564, 484	Cash registers and parts.....	42, 326, 496
Wisconsin.....	4, 523, 013	Cement and concrete machinery.....	25, 216, 391
Michigan.....	4, 067, 791	Cement-making machinery.....	5, 532, 083
Indiana.....	3, 857, 044	Pennsylvania.....	2, 017, 751
Minnesota.....	3, 032, 424	Ohio.....	453, 401
Iowa.....	2, 680, 358	Cement and concrete-block machinery.....	1, 460, 515
Ohio.....	2, 054, 885	Michigan.....	558, 065
New York.....	1, 376, 603	Illinois and Ohio.....	553, 929
Pennsylvania.....	795, 980	Concrete mixers.....	12, 619, 755
Missouri.....	213, 037	Wisconsin.....	6, 497, 183
Planting machinery.....	13, 709, 184	New York and Pennsylvania.....	1, 326, 190
Illinois.....	4, 921, 560	Iowa.....	1, 297, 671
Ohio.....	2, 392, 409	Michigan.....	679, 360
New York.....	290, 891	Oregon.....	20, 374
Aircraft.....	8, 102, 106	Other cement and concrete machinery.....	5, 604, 038
New York.....	2, 536, 259	New Jersey and Pennsylvania.....	2, 770, 506
Ohio.....	1, 788, 377	Illinois.....	565, 582
California.....	390, 680	Ohio.....	480, 552
Bakers' machinery and equipment.....	17, 212, 093	Iowa.....	443, 108
Bake ovens.....	6, 855, 158	Check-writing machines.....	2, 092, 566
Other bakers' equipment.....	10, 356, 935	Clay-working machinery (brick, pottery, etc.).....	5, 298, 340
Ohio.....	3, 294, 545	Ohio.....	2, 706, 352
New York and Pennsylvania.....	2, 371, 429	Pennsylvania.....	1, 089, 661
Indiana, Michigan, and Wisconsin.....	1, 895, 288	New Jersey.....	500, 201
Illinois.....	1, 013, 282	Michigan.....	263, 068
New Jersey.....	792, 646	Illinois.....	56, 861
Baling presses.....	1, 196, 332	New York.....	27, 936
Blowers and fans.....	16, 210, 436	Clothing-pressing machines.....	8, 408, 982
Massachusetts and Connecticut.....	6, 629, 089	Coffee roasting and grinding machines.....	1, 922, 492
Michigan and Ohio.....	2, 955, 250	Condensers.....	4, 938, 030
New Jersey and Pennsylvania.....	1, 798, 897	New Jersey, New York, and Pennsylvania.....	3, 374, 880
Indiana.....	1, 510, 651	Confectionery and ice-cream machinery.....	5, 143, 470
New York.....	1, 032, 677	Massachusetts.....	1, 619, 347
Bookbinding machinery.....	3, 389, 126	Illinois.....	776, 415
Illinois.....	794, 909	Pennsylvania.....	594, 981
New York.....	686, 439	New York.....	546, 051
Bottling machinery.....	10, 138, 835	New Jersey.....	538, 167
Illinois.....	2, 429, 875	Ohio.....	229, 793
Iowa and Wisconsin.....	1, 915, 033		
Ohio.....	1, 066, 483		
New York.....	876, 801		

TABLE 2.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR LEADING STATES: 1925—Continued

[See note at head of this table]

CLASS AND STATE	Value	CLASS AND STATE	Value
Conveying machinery.....	\$30,688,471	Electrical machinery.....	\$134,513,423
Bucket type.....	14,717,245	Generators (not including auto-	
Ohio.....	6,227,322	motive generators) <sup>1</sup> .....	23,215,976
Illinois.....	3,569,732	Rotating converting apparatus.....	11,135,049
Pennsylvania.....	2,481,077	Motors (not including electric	
Minnesota and Wisconsin.....	304,769	fans nor starter motors for	
New York.....	191,995	motor vehicles).....	100,162,398
California.....	90,931		
Belt type.....	8,601,059	Elevators and elevator machinery.....	47,429,964
New Jersey and New York.....	3,658,502	Passenger.....	24,624,682
Illinois.....	1,655,901	Freight.....	22,806,282
Ohio.....	945,427	Illinois.....	7,907,928
Pennsylvania.....	456,123	New Jersey and Pennsylvania.....	5,357,387
Indiana.....	318,488	New York.....	3,429,097
California.....	227,243	Ohio.....	1,682,054
Other types.....	7,370,167	California.....	713,967
New York, Ohio, and Pennsyl-		Massachusetts.....	680,140
vania.....	3,806,655	Wisconsin.....	457,798
Illinois.....	2,618,387	Missouri.....	220,673
Cotton gins.....	12,807,969	Indiana.....	165,301
Texas.....	4,634,201	Maryland.....	159,092
Georgia.....	3,536,337	Engines (steam or internal-com-	
Cranes (including hoists and der-		bustion), water wheels, and	
ricks).....	43,935,663	parts <sup>2</sup> .....	317,254,544
Locomotive.....	13,161,678	Michigan.....	94,838,939
Ohio.....	6,148,833	Wisconsin.....	54,841,800
Illinois and Indiana.....	2,854,888	Illinois.....	33,132,573
Stationary.....	11,601,245	Pennsylvania.....	28,255,900
Michigan and Ohio.....	3,577,246	New York.....	21,224,777
Connecticut and New York.....	3,290,206	California.....	17,096,927
Minnesota and Wisconsin.....	1,203,089	Ohio.....	16,479,283
Illinois.....	547,551	Indiana.....	11,014,574
Traveling.....	19,172,740	Iowa.....	8,196,380
Ohio.....	8,964,613	Minnesota.....	6,512,460
Illinois and Michigan.....	3,520,078	Massachusetts.....	6,163,249
Wisconsin.....	2,300,315	Missouri.....	4,965,872
Pennsylvania.....	1,430,912	New Jersey.....	4,635,536
California and Washington.....	281,002	Connecticut.....	4,154,775
Dairy, cheese-factory, and butter-		Washington.....	1,131,547
factory machinery.....	15,176,930	West Virginia.....	506,150
Wisconsin.....	5,288,487	Flour-mill and grain-mill ma-	
New York.....	4,560,888	chinery.....	7,945,924
Iowa.....	1,718,443	Pennsylvania.....	1,803,986
Illinois.....	1,179,331	Minnesota.....	1,501,787
Pennsylvania.....	1,127,353	Illinois.....	1,210,000
Michigan.....	367,130	New York.....	829,656
Dish-washing machines.....	1,473,509	Wisconsin.....	561,558
New Jersey, New York, and		Ohio.....	537,020
Pennsylvania.....	888,026	Missouri.....	497,066
Dredging and excavating machin-		Michigan.....	105,774
ery, including power shovels.....	45,841,058	Nebraska.....	55,596
Dredging machinery.....	4,452,520	Gas machines and apparatus.....	7,527,864
Hydraulic.....	2,684,219	Indiana.....	1,883,373
Other dredging machinery.....	1,768,301	Ohio.....	1,376,234
Excavating machinery.....	11,388,538	Illinois.....	530,921
Draglines or power scrapers.....	9,005,506	Glass-making machinery.....	2,665,856
Wisconsin.....	5,512,171	Ohio.....	1,191,299
Illinois.....	1,381,252	Illinois.....	448,074
Power shovels.....	26,609,195	Pennsylvania and West Vir-	
Ohio.....	8,586,428	ginia.....	278,340
Wisconsin.....	5,297,595	Hat-making machinery.....	522,284
Trench excavators.....	3,129,920	Connecticut.....	307,003
Other excavating machinery.....	2,643,917	New York.....	189,599
		Hydraulic machinery (other than	
		for dredging).....	4,937,916
		Hydraulic rams.....	217,629
		Other.....	4,720,287
		Illinois, Minnesota, and Wis-	
		consin.....	1,424,898
		New Jersey.....	1,023,859
		Pennsylvania.....	556,613
		California.....	91,400

<sup>1</sup> Not including automotive generators and generators for self-contained power and lighting outfits.<sup>2</sup> Not including value of steam boilers made for sale as separate units.

TABLE 2.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR LEADING STATES: 1925—Continued

[See note at head of this table]

CLASS AND STATE	Value	CLASS AND STATE	Value
Incandescent-lamp-making machinery	\$4,255,464	Motion-picture cameras and projectors	\$4,620,392
New Jersey	2,666,992	Illinois	2,826,867
Laundry machinery	24,198,050	New York	1,625,952
New York, Ohio, and Pennsylvania	13,701,364	Motor cycles and bicycles	15,906,223
Illinois	5,361,173	Motor cycles	8,875,657
New Jersey	1,199,097	Bicycles	7,030,566
Massachusetts	998,296	Motor vehicles, except motor cycles	2,946,821,212
California	111,950	Passenger vehicles	2,527,575,450
Lawn mowers	8,046,961	Michigan	1,246,309,150
Hand	7,117,169	Ohio	261,672,474
Indiana	2,390,539	Wisconsin	140,469,444
Pennsylvania	1,555,872	Indiana	124,261,155
Power	929,792	New York	112,784,755
Leather-working machinery (other than shoe machinery)	2,222,168	Missouri	103,156,061
Massachusetts	1,556,534	California	61,726,068
Locomotives (steam, electric, and internal-combustion)	58,359,274	New Jersey	60,644,492
Manifolding machines (mimeographs, multigraphs, etc.)	3,883,803	Pennsylvania	41,768,243
Metal-working machinery, including machine tools	138,812,149	Illinois	39,990,915
Machine tools	91,459,403	Massachusetts	24,941,300
Ohio	25,394,838	Business vehicles	287,243,212
Pennsylvania	10,488,193	Michigan	110,436,329
Massachusetts	7,589,750	Ohio	50,431,447
Connecticut	7,157,646	Pennsylvania	25,929,225
Illinois	5,965,672	Indiana	20,962,731
New York	5,435,887	New York	11,352,218
Michigan	5,379,617	Illinois	11,344,427
Wisconsin	4,129,124	California	6,244,846
Vermont	4,102,264	Missouri	5,679,880
Indiana	3,214,084	Wisconsin	5,670,243
New Jersey	3,127,802	Government (Federal, State, county, and municipal) vehicles	10,486,267
Metal-working machinery, other than machine tools	47,352,746	Chassis	121,516,283
Ohio	9,669,274	Michigan	26,177,970
Pennsylvania	8,066,125	Pennsylvania	20,971,595
New York	6,307,460	New Jersey	17,235,513
Connecticut	5,702,121	New York	15,873,508
Massachusetts	4,844,550	Ohio	12,828,839
Illinois	4,533,464	Oil-mill machinery, cottonseed and other	4,132,329
New Jersey	2,977,970	Ohio	1,636,606
Michigan	2,617,287	Georgia	276,374
Wisconsin	437,978	Oil-well machinery	47,299,105
California	395,180	California	11,823,539
Meters, gas and water	24,501,845	Pennsylvania	7,808,376
New York	8,979,532	Texas	5,419,581
Pennsylvania	5,438,592	West Virginia	5,165,545
Connecticut and Massachusetts	2,885,818	Ohio	4,739,255
Ohio	1,447,060	Oklahoma	2,831,839
Mining machinery (other than oil-well machinery)	34,827,448	New York	1,777,522
New Jersey and New York	8,232,833	Missouri	1,517,124
Indiana and Ohio	6,799,747	Kansas	1,346,773
Pennsylvania	4,877,315	Indiana	1,088,782
Colorado	3,423,298	Illinois	972,515
Illinois and Wisconsin	2,747,303	Louisiana	970,807
Missouri	1,458,136	Ore crushers	3,251,737
California	873,543	Packaging machines	4,387,170
Iowa	592,938	Connecticut, Massachusetts, and New Hampshire	2,051,252
		Illinois and Kentucky	858,260
		Michigan and Ohio	735,139
		New York and Pennsylvania	213,444



TABLE 2.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR LEADING STATES: 1925—Continued

[See note at head of this table]

CLASS AND STATE	Value	CLASS AND STATE	Value
Packing-house machinery.....	\$5,370,212	Refrigerating and ice-making machinery.....	\$62,592,637
Meat-packing.....	4,249,140	Refrigerating machinery (other than ice-making).....	47,297,003
Illinois and Missouri.....	3,186,240	Michigan, Ohio, and Wisconsin.....	31,538,022
Pennsylvania.....	175,938	Pennsylvania.....	4,055,885
Other packing-house machinery.....	1,121,072	Illinois.....	3,494,113
Paint-making machinery.....	1,212,683	Missouri.....	1,455,313
New York, Ohio, and Pennsylvania.....	923,532	New Jersey.....	1,209,553
Paper-box machinery.....	4,644,800	Connecticut and New York.....	946,627
New Jersey and Pennsylvania.....	2,074,160	California.....	688,416
New York.....	1,163,626	Washington.....	466,420
Massachusetts.....	464,607	Texas.....	112,711
Illinois.....	225,464	Ice-making machinery.....	15,295,634
Paper-mill and pulp-mill machinery.....	21,208,761	Pennsylvania.....	6,694,988
Massachusetts.....	5,541,461	Illinois, Kentucky, and Ohio.....	5,063,575
Wisconsin.....	4,028,984	California.....	1,105,432
New York.....	3,873,848	New Jersey and New York.....	898,542
Ohio.....	2,373,075	Washington.....	100,113
Pharmaceutical machinery.....	964,807	Road-making machinery.....	26,296,964
Photo-engraving machinery.....	357,341	Road graders.....	12,737,625
Pneumatic machinery (other than pneumatic tools).....	30,582,112	Illinois, Indiana, and Ohio.....	7,715,468
Air compressors.....	29,472,834	Minnesota, South Dakota, and Wisconsin.....	4,404,377
New Jersey and New York.....	11,913,271	Nebraska.....	374,133
Pennsylvania.....	7,022,397	Road rollers.....	4,581,644
Indiana, Ohio, and Wisconsin.....	4,566,991	New York, Ohio, and Pennsylvania.....	3,769,726
Illinois.....	1,402,641	Stone crushers.....	2,436,732
California.....	706,129	Illinois, Iowa, and Wisconsin.....	1,291,209
Other pneumatic machinery.....	1,109,278	Pennsylvania.....	507,100
Printing machinery.....	69,216,683	New York.....	431,983
Presses.....	36,034,478	Other road-making machinery.....	6,540,963
Illinois, Michigan, and Ohio.....	17,022,531	Ohio.....	1,281,495
New Jersey.....	7,047,445	Illinois.....	1,102,507
Connecticut.....	3,225,592	New York.....	843,131
Pennsylvania.....	884,308	Iowa and Wisconsin.....	807,966
Wisconsin and Minnesota.....	414,871	Pennsylvania.....	175,443
California.....	252,308	California and Oregon.....	144,179
Typesetting machines.....	23,580,512	Rubber-working machinery.....	10,164,497
Other printing machinery.....	9,601,693	New Jersey, New York, and Connecticut.....	4,122,748
New York.....	3,331,097	Ohio.....	3,649,330
Illinois.....	1,826,176	Scales and balances.....	23,690,827
Ohio.....	1,610,280	Illinois and Ohio.....	12,014,683
Pumps and pumping equipment, including parts and attachments.....	121,299,431	Michigan.....	2,529,503
Indiana.....	20,849,510	New York.....	1,530,684
Massachusetts.....	13,357,152	New Jersey.....	1,345,728
California.....	12,311,962	Pennsylvania.....	662,014
Pennsylvania.....	8,985,174	Indiana.....	78,970
New Jersey.....	8,722,358	Sewing machines, cases, cabinets, attachments, and parts.....	45,130,777
New York.....	8,122,119	Sewing machines.....	35,683,568
Michigan.....	7,780,175	Cases, cabinets, and attachments.....	7,736,529
Illinois.....	7,535,339	Sewing-machine parts.....	1,700,680
Wisconsin.....	6,169,416	Shoe machinery.....	11,769,137
Connecticut.....	3,267,678	Slicing machines.....	4,860,190
Iowa.....	1,572,952	Indiana and Ohio.....	4,548,441
Missouri.....	1,413,858		
Minnesota.....	1,089,272		
Nebraska.....	647,816		

TABLE 2.—VALUES OF PRINCIPAL CLASSES OF MACHINERY, FOR LEADING STATES: 1925—Continued

[See note at head of this table]

CLASS AND STATE	Value	CLASS AND STATE	Value
Slot-vending machines.....	\$4,202,106	Vacuum cleaners.....	\$40,285,149
Illinois.....	2,903,687	Ohio and Michigan.....	30,868,885
New York.....	227,044	Illinois.....	2,121,669
Ohio.....	215,867	Washing machines, clothes wring-	
California.....	212,495	ers, driers, and ironing ma-	
Wisconsin.....	68,434	chines, for domestic use.....	70,239,872
Stokers, mechanical.....	9,419,786	Washing machines.....	61,861,881
Pennsylvania.....	3,432,202	Iowa.....	25,367,558
Michigan and Ohio.....	3,218,859	New York.....	14,380,162
Illinois, Indiana, and Missouri.....	970,052	Illinois.....	10,059,746
Stone-working machinery.....	1,735,826	Ohio.....	4,345,844
Vermont.....	689,406	Indiana and Michigan.....	3,330,096
Sugar-mill machinery.....	8,643,232	Missouri.....	646,298
Textile machinery and parts.....	109,354,126	Ironing machines.....	3,747,426
Massachusetts.....	45,718,696	Illinois.....	3,127,748
Pennsylvania.....	21,159,721	Wringers and driers.....	4,630,565
Rhode Island.....	16,782,769	Well-drilling machinery (other	
Connecticut, Maine, and New		than oil-well machinery).....	1,842,821
Hampshire.....	10,668,317	Windmills and windmill towers...	
New Jersey.....	7,385,176	Illinois.....	5,682,127
Illinois.....	2,293,169	Illinois.....	3,336,749
New York.....	1,826,949	Wisconsin.....	1,134,434
North Carolina.....	1,098,537	Woodworking machinery.....	39,619,735
Vermont.....	602,278	Wisconsin.....	9,497,068
South Carolina.....	431,869	Ohio.....	5,071,622
Tobacco-manufacturing machinery.....	3,818,196	Michigan.....	3,970,967
Transmission machinery.....	15,350,289	Illinois.....	3,615,367
Illinois.....	2,591,814	New York.....	3,155,355
Wisconsin.....	2,033,940	Massachusetts.....	2,560,332
Pennsylvania.....	1,990,795	Pennsylvania.....	2,219,279
New York.....	1,832,703	Washington.....	1,743,102
Ohio.....	1,195,404	Indiana.....	1,210,237
Massachusetts.....	619,254	New Jersey.....	1,055,031
California.....	436,789	North Carolina.....	1,044,011
Oregon.....	159,968		
Typewriters and parts.....	50,189,986		
New York.....	21,737,090		
Connecticut.....	18,471,147		
Illinois.....	3,749,189		

## METAL-WORKING MACHINERY (INCLUDING MACHINE TOOLS)

[A preliminary report for this industry was issued under date of February 1, 1927]

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of power-driven machines for cutting, shaping, and stamping metal, and for driving screws, calking, and riveting. Prior to the census for 1925 the industry, under the designation "Machine tools," included only those establishments whose principal products were machine tools. For purposes of comparison the statistics are presented for the industry as a whole, for establishments whose chief products are machine tools, and for establishments engaged primarily in the manufacture of metal-working machinery other than machine tools.

**Detailed statistics of products.**—The numbers and the values of the several classes of metal-working machinery are shown in Table 4, page 1043, for 1925. Comparative figures are presented for machine tools, by kind, number, and value, for 1923, but such figures can not be shown for metal-working machinery, other than machine tools.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1925**

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
<b>THE INDUSTRY AS A WHOLE</b>								
1925.....	378	36,825	\$55,931,810	\$1,797,942	\$54,524,362	\$175,592,488	\$121,068,126	147,418
<b>MACHINE TOOLS ONLY</b>								
1925.....	329	30,831	46,711,302	211,324	43,826,151	144,202,483	100,376,332	118,819
1923.....	350	33,373	47,336,800	482,370	40,977,024	137,206,098	96,229,074	109,196
1921.....	348	21,307	25,251,735	223,935	23,978,248	67,729,362	43,751,114	( <sup>3</sup> )
1919 <sup>4</sup> .....	403	53,111	66,178,969	1,469,844	59,034,308	212,400,158	153,365,850 <sup>5</sup>	100,294
Per cent of increase or decrease (—):								
1923-1925.....	-6.0	-7.6	-1.3	-56.2	7.0	5.1	4.3	8.8
1921-1923.....	.6	56.6	87.5	115.4	70.9	102.6	119.9	-----
1921-1925.....	-5.5	44.7	85.0	-5.6	82.8	112.9	129.4	-----
<b>METAL-WORKING MACHINERY, OTHER THAN MACHINE TOOLS</b>								
1925.....	49	5,994	9,220,508	1,586,618	10,698,211	31,390,005	20,691,794	28,599

<sup>1</sup> Including also cost of fuel, electric power, and mill supplies.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Not classified as a separate industry prior to 1919.

<sup>5</sup> This item differs slightly from the corresponding one published in the report for 1919 because of the exclusion here and the inclusion in the previous report of data for purchased power other than electric. (See footnote 1, Table 3, p. 1043.)

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 6, p. 1047]

INDUSTRY AND STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY											
		January	February	March	April	May	June	July	August	September	October	November	December
		THE INDUSTRY AS A WHOLE											
United States:													
1925 1.....	36,825	32,837	33,541	33,715	34,237	34,835	35,553	36,613	37,457	38,504	39,907	41,028	42,996
Connecticut.....	4,208	3,690	3,793	3,841	3,842	3,943	4,033	4,225	4,361	4,401	4,665	4,772	4,934
Illinois.....	2,230	2,029	2,057	2,103	2,086	2,135	2,135	2,182	2,260	2,274	2,368	2,509	2,621
Indiana.....	989	904	925	952	964	955	962	976	1,021	1,005	1,017	1,033	1,152
Kentucky.....	115	107	111	112	109	102	105	113	120	115	116	126	138
Massachusetts.....	2,530	2,236	2,244	2,240	2,323	2,314	2,376	2,449	2,597	2,709	2,848	2,961	3,059
Michigan.....	2,079	1,727	1,799	1,836	1,868	2,021	2,080	2,145	2,136	2,239	2,266	2,367	2,462
Minnesota.....	60	51	56	58	56	54	65	69	65	63	69	61	64
Missouri.....	169	139	150	154	126	164	157	153	192	193	172	183	159
New Hampshire.....	72	62	63	71	71	65	66	74	78	73	79	83	81
New Jersey.....	1,520	1,474	1,462	1,456	1,457	1,414	1,448	1,488	1,561	1,587	1,601	1,696	1,596
New York.....	3,196	2,692	2,806	2,912	2,977	3,075	3,249	3,315	3,295	3,220	3,431	3,568	3,706
Ohio.....	9,531	8,632	8,688	8,501	8,897	9,081	9,305	9,569	9,738	10,035	10,338	10,576	10,908
Pennsylvania.....	3,018	2,828	2,887	2,918	2,920	2,943	2,965	3,016	3,023	3,059	3,137	3,231	3,283
Vermont.....	1,159	913	965	982	980	1,049	1,093	1,154	1,190	1,236	1,322	1,472	1,549
Wisconsin.....	1,540	1,258	1,281	1,294	1,299	1,365	1,392	1,462	1,604	1,778	1,851	1,994	1,991
MACHINE TOOLS													
United States:													
1925 1.....	30,831	27,515	28,041	28,064	28,482	29,024	29,637	30,605	31,409	32,234	33,576	35,053	36,337
1923 1.....	33,373	30,147	31,490	32,962	34,205	34,680	34,943	34,764	34,235	33,095	33,453	32,772	32,828
1921 1.....	21,307	36,516	32,291	28,361	25,315	21,755	19,567	16,959	15,262	14,709	14,944	14,767	15,160
1919 1.....	53,111	55,750	52,941	51,636	50,195	49,515	50,166	51,074	52,498	52,713	55,190	56,391	56,640
Connecticut.....	3,696	3,256	3,339	3,381	3,358	3,459	3,547	3,718	3,834	3,841	4,082	4,191	4,350
Illinois.....	2,019	1,847	1,872	1,910	1,896	1,939	1,936	1,982	2,044	2,043	2,123	2,261	2,374
Michigan.....	1,872	1,569	1,646	1,692	1,739	1,858	1,870	1,897	1,906	1,978	2,024	2,114	2,174
Missouri.....	162	159	156	134	126	164	157	153	192	193	172	183	159
New Hampshire.....	72	62	63	71	71	65	66	74	78	73	79	83	81
New York.....	1,705	1,338	1,438	1,508	1,538	1,596	1,724	1,790	1,775	1,816	1,899	1,966	2,065
Ohio.....	8,363	7,573	7,607	7,476	7,958	8,193	8,103	8,444	8,639	8,877	9,143	9,362	9,666
Pennsylvania.....	2,354	2,230	2,248	2,266	2,267	2,293	2,307	2,341	2,342	2,381	2,454	2,522	2,588

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925—Continued

[See note at head of this table]

INDUSTRY AND STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY											
		January	February	March	April	May	June	July	August	September	October	November	December
United States: 1925 <sup>1</sup>	5,994	5,572	5,500	5,651	5,755	5,811	5,916	6,008	6,048	6,270	6,391	6,575	6,629
Connecticut.....	512	434	454	460	484	484	486	507	527	560	583	581	584
Illinois.....	217	182	185	193	190	195	199	209	216	231	245	248	247
Michigan.....	207	158	153	144	129	163	210	238	230	261	242	253	288
New York.....	1,491	1,854	1,368	1,404	1,439	1,479	1,525	1,525	1,520	1,504	1,532	1,602	1,641
Ohio.....	1,138	1,039	1,081	1,115	1,113	1,123	1,112	1,125	1,119	1,158	1,195	1,214	1,242
Pennsylvania.....	664	598	639	652	653	650	658	675	681	678	683	709	695

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum for the industry as a whole in 1925, 76.5.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	METAL-WORKING MACHINERY, INCLUDING MACHINE TOOLS, TOTAL, 1925		MACHINE TOOLS ONLY					
			1925		1923		1919	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
Prime movers, total.....	10,704	Horse-power 147,418	9,284	Horse-power 118,819	8,250	Horse-power 109,196	7,971	Horse-power 100,294
Steam engines.....	110	20,624	96	17,139	115	23,445	132	20,325
Steam turbines.....	28	7,845	24	7,450			17	6,650
Internal-combustion engines.....	28	2,206	18	1,086	26	1,697	55	2,249
Water wheels and turbines.....	10	1,465	9	1,420	7	470	16	1,033
Electric motors driven by purchased current.....	10,528	115,278	9,137	91,724	8,102	83,584	7,751	70,037
Electric motors, total.....	15,723	162,353	13,339	126,396	11,699	116,348	11,408	98,817
Driven by purchased current.....	10,528	115,278	9,137	91,724	8,102	83,584	7,751	70,037
Driven by current generated in establishment reporting.....	5,195	47,075 Kilo-watts	4,202	34,672 Kilo-watts	3,597	32,764 Kilo-watts	3,657	28,780 Kilo-watts
Electric generators.....	140	27,265	107	23,164	(2)	(2)	(2)	(2)

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY CLASS, NUMBER, AND VALUE, FOR THE UNITED STATES: 1925 AND 1923

CLASS	1925		1923	
	Number	Value	Number	Value
Total value.....		\$196,360,758		(1)
Metal-working machinery industry, all products.....		175,592,488		(1)
Metal-working machinery.....		118,043,879		(1)
Parts and attachments for—				
Machine tools.....		32,192,602		\$25,460,514
Other metal-working machinery.....		409,687		(1)
Custom work and repairs.....		3,892,081		25,669,052
All other products.....		21,054,239		
Metal-working machinery, secondary products of other industries.....		20,768,270		(1)
Metal-working machinery, total, all industries.....		138,812,149		(1)
Machine tools, total.....		91,459,403		89,964,059
Bending machines.....	807	641,711	616	616,443
Boring machines—				
Horizontal.....	583	1,687,889	477	1,231,584
Vertical.....	219	1,344,137	326	2,345,772
Broaching machines.....	435	540,093	235	347,317
Cutting-off machines—				
Rotary-cutter type.....	250	294,168	299	404,467
Hacksaw type.....	1,536	202,369	652	207,873
Drilling machines (except portable)—				
Multiple spindle.....	1,211	2,109,738	(3)	3,431,563
Radial.....	831	2,039,834	(3)	2,431,268
Sensitive.....	3,577	1,776,238	2,612	1,228,455
Vertical (upright).....	2,529	1,119,833	2,506	1,048,781

See footnotes at end of table

# CENSUS OF MANUFACTURES: 1925

## TABLE 4.—PRODUCTS, BY CLASS, NUMBER, AND VALUE, FOR THE UNITED STATES: 1925 AND 1923—Continued

CLASS	1925		1923	
	Number	Value	Number	Value
Machine tools—Continued.				
Forging machines—				
Bolt, nut, and rivet.....	18	\$219,810	24	\$100,885
Bulldozers and other.....	67	559,510	96	711,992
Gear-cutting machines—				
Generator, hobbing type.....	647	2,025,735	1,107	3,506,206
Formed and disk-cutter types, and other.....	624	2,232,615		
Grinding machines—				
Cylindrical—				
Plain.....	( <sup>3</sup> )	3,136,075	( <sup>3</sup> )	2,580,767
Universal.....	330	508,500		
Surface.....	894	1,466,760	1,034	2,122,134
Cutter, tool, and knife.....	1,548	1,769,773	988	1,052,843
Internal.....	765	2,005,278	515	888,620
Other.....	( <sup>3</sup> )	1,847,504	( <sup>3</sup> )	1,137,318
Hammers (stationary)—				
Drop.....	201	407,608	122	164,220
Steam, pneumatic, and belt or motor-driven.....	654	421,854	531	276,322
Lathes—				
Engine.....	5,165	7,675,897	7,295	8,884,904
Bench.....	930	397,627	950	462,123
Turret (including hand-screw machines).....	1,567	4,155,054	2,544	5,320,087
Other.....	( <sup>3</sup> )	4,115,996	1,197	4,323,371
Milling machines—				
Hand feed.....	450	207,855	274	93,794
Power feed—				
Plain.....	723	1,624,617	1,063	1,881,709
Universal.....	599	1,330,884	453	959,967
Vertical.....	333	860,080	328	770,541
Lincoln type.....	374	679,101	194	438,950
Planer type.....	121	1,022,037	56	672,969
Other.....	( <sup>3</sup> )	734,022	538	1,229,295
Pipe-cutting and threading machines.....	2,637	1,304,858	1,958	1,002,497
Planers.....	193	1,104,786	302	2,110,093
Portable tools—				
Drills, electric and pneumatic.....	92,558	4,097,152	( <sup>3</sup> )	5,392,626
Hammers, pneumatic (chipping, riveting, calking, etc.).....	53,104	6,049,773	( <sup>3</sup> )	5,887,797
Grinders, electric.....	18,500	1,122,167	( <sup>3</sup> )	812,553
Other.....	( <sup>3</sup> )	627,233	( <sup>3</sup> )	265,024
Presses—				
Hydraulic—				
Bending and forming.....	1,015	1,592,075	501	553,839
Forging.....	38	81,247	274	124,355
Power, for sheet-metal work.....	( <sup>3</sup> )	6,321,631	5,730	5,466,626
Punching machines (stationary).....	1,034	1,910,160	1,390	1,119,302
Riveting machines (stationary).....	( <sup>3</sup> )	687,519	1,947	658,218
Screw machines (automatic)—				
Multiple-spindle.....	1,140	3,971,721	954	2,833,781
Single-spindle.....	1,161	1,947,545	1,159	2,006,958
Shapers.....	1,125	1,614,760	1,569	2,052,805
Shears (power).....	1,892	1,351,204	1,763	980,689
Slotters.....	62	404,968	81	446,363
Threading machines (except for pipe)—				
Die type.....	153	171,127	162	277,515
Milling type.....	81	344,106	115	371,968
Tapping machines and rolling type.....	4,336	324,287	580	439,427
All other machine tools.....		5,240,832		6,290,083
Metal-working machinery, other than machine tools, total.....		47,352,746		
Rolling-mill machines.....		15,001,162		
Sheet-metal working machines.....		17,467,548		
Welding machines.....		1,175,536		
Wiredrawing machines.....		670,559		
Wireworking machines.....		2,141,750		
All other metal-working machinery.....		10,896,191		

<sup>1</sup> Because of changes in classification, no figures comparable with those for 1925 can be given for the total value of products or for items which include metal-working machinery other than machine tools.

<sup>2</sup> Represents "Amount received for custom work and repairs" and value of "All other products" as reported by establishments engaged primarily in the manufacture of machine tools.

<sup>3</sup> No comparable data.

<sup>4</sup> Tapping machines only.

<sup>5</sup> Includes machine tools to the value of \$3,787,527 made as secondary products by establishments classified in other industries and not reported by class.

TABLE 5.—PRODUCTS, BY CLASS, NUMBER, AND VALUE, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the States shown in combination, however, reported larger values of specified items than some of the States shown separately.]

CLASS AND STATE	Number	Value	CLASS AND STATE	Number	Value
Machine tools, total.....		\$91,450,403	Machine tools—Continued.		
Ohio.....		25,394,838	Gear-cutting machines, total.....	1,271	\$4,258,350
Pennsylvania.....		10,488,193	Formed or disk-cutter type and other.....	624	2,232,615
Massachusetts.....		7,589,750	Generator, hobbing type.....	647	2,025,735
Connecticut.....		7,157,646	Grinding machines, total.....		10,733,890
Illinois.....		5,965,672	Cylindrical.....	(1)	3,644,575
New York.....		5,435,887	Plain.....	(1)	3,136,075
Michigan.....		5,379,617	Universal.....	330	508,500
Wisconsin.....		4,129,124	Massachusetts and Rhode Island.....	136	219,311
Vermont.....		4,102,264	Michigan, Ohio, and Pennsylvania.....	194	289,189
Indiana.....		3,214,034	Surface.....	894	1,466,760
New Jersey.....		3,127,802	Massachusetts.....	241	784,800
All other States.....		9,474,526	Connecticut and Rhode Island.....	452	425,550
Bending machines, total.....	807	641,711	Illinois, Michigan, and Wisconsin.....	159	241,788
Illinois.....	555	116,323	All other States.....	42	14,622
Ohio and Pennsylvania.....	106	361,431	Cutter, tool and knife.....	1,548	1,769,773
Michigan and Wisconsin.....	28	53,609	Connecticut.....	110	118,365
All other States.....	88	110,348	Massachusetts.....	174	75,071
Boring machines, total.....	802	3,032,026	Illinois and Wisconsin.....	47	22,890
Horizontal.....	533	1,687,889	All other States.....	1,217	1,553,447
Illinois.....	70	217,010	Internal.....	765	2,005,273
New Jersey.....	240	57,377	Other.....	(1)	1,847,504
Connecticut and Massachusetts.....	129	558,843	Massachusetts.....	(1)	438,647
Ohio and Pennsylvania.....	99	577,860	Michigan.....	(1)	156,536
All other States.....	45	276,799	Pennsylvania.....	(1)	133,112
Vertical.....	219	1,344,137	Connecticut, Rhode Island, and Vermont.....	(1)	400,914
Ohio and Pennsylvania.....	121	847,397	Illinois and Ohio.....	(1)	666,555
All other States.....	98	496,740	All other States.....	(1)	56,740
Broaching machines, total.....	435	540,093	Hammers (stationary), total.....	855	829,462
Michigan.....	207	150,579	Drop.....	201	407,608
Connecticut, Massachusetts, and New York.....	108	146,615	Steam, pneumatic, and belt or motor-driven.....	654	421,854
All other States.....	120	242,899	Lathes, total.....		16,344,574
Cutting-off machines, total.....	1,786	496,837	Engine.....	5,165	7,675,897
Rotary cutter type.....	250	294,168	Ohio.....	2,615	4,756,805
New York.....	91	121,575	Connecticut, Massachusetts, and New Hampshire.....	722	1,209,486
Illinois and Ohio.....	66	52,181	New Jersey, New York, and Pennsylvania.....	169	795,471
All other States.....	93	120,412	Illinois and Kentucky.....	210	138,713
Hacksaw type.....	1,536	202,369	All other States.....	1,449	775,422
Drilling machines (except portable), total.....	8,148	7,045,693	Bench.....	930	397,627
Multiple spindle.....	1,211	2,109,738	Massachusetts.....	525	122,167
Illinois.....	216	463,418	Illinois and Ohio.....	196	193,110
Michigan.....	163	226,305	All other States.....	209	82,350
Ohio.....	217	425,274	Turret (including hand-screw machines).....	1,567	4,155,054
Connecticut, Massachusetts, and Rhode Island.....	212	253,456	Connecticut, Rhode Island, and Vermont.....	608	1,991,355
Indiana and Wisconsin.....	403	741,285	New York and Ohio.....	577	1,264,919
Radial.....	831	2,039,834	Indiana and Wisconsin.....	382	898,750
Ohio.....	743	1,803,214	Other.....	(1)	4,115,996
Michigan and Wisconsin.....	46	92,398	Illinois.....	(1)	315,301
All other States.....	42	144,222	Michigan.....	(1)	692,956
Sensitive.....	3,577	1,776,238	Connecticut, Massachusetts, Rhode Island, and Vermont.....	(1)	2,605,660
Ohio.....	642	198,108	All other States.....	(1)	502,079
Connecticut, Massachusetts, and New Hampshire.....	1,551	951,372	Milling machines, total.....		6,488,596
All other States.....	1,384	626,758	Hand feed.....	450	207,855
Vertical (upright).....	2,529	1,119,883	Connecticut, Massachusetts, and Rhode Island.....	81	39,437
Illinois.....	1,150	357,890	Ohio and Pennsylvania.....	304	146,112
Indiana and Ohio.....	721	419,265	All other States.....	65	22,306
Massachusetts and New York.....	395	323,198	Power feed.....		6,280,741
All other States.....	263	19,530	Plain.....	723	1,624,617
Forging machines, total.....	85	779,320			
Bolt, nut, and rivet.....	18	219,810			
Bulldozers and other.....	67	559,510			

<sup>1</sup> Data incomplete.



TABLE 5.—PRODUCTS, BY CLASS, NUMBER, AND VALUE, BY STATES: 1925—  
Continued

[See note at head of this table]

CLASS AND STATE	Num- ber	Value	CLASS AND STATE	Num- ber	Value
Machine tools—Continued.			Machine tools—Continued.		
Milling machines—Contd.			Slotters, total.....	62	\$404,968
Power feed—Continued.			Connecticut and Massa- chusetts.....	41	72,588
Universal.....	599	\$1,360,884	New York and Pennsyl- vania.....	21	332,380
Connecticut, Massa- chusetts, and Rhode Island.....	295	597,185	Threading machines (ex- cepting for pipe), total.....	570	839,520
Illinois and Ohio.....	228	568,731	Die type.....	153	171,127
All other States.....	76	194,968	Milling type.....	81	344,106
Vertical.....	333	890,080	Tapping machines.....	336	324,287
Illinois and Ohio.....	169	516,850	All other machine tools, total.....	(1)	5,240,832
Massachusetts and Rhode Island.....	88	186,654			
All other States.....	76	156,576	Metal-working machinery, other than machine tools, total.....		47,352,746
Lincoln type.....	374	679,101	Rolling-mill machines, total.....		15,001,162
Planer type.....	121	1,022,037	Ohio.....		3,554,771
Other.....	(1)	734,022	Pennsylvania.....		6,818,408
			All other States.....		4,627,983
Pipe-cutting and threading machines, total.....	2,637	1,304,858			
Michigan.....	148	118,004	Sheet-metal working ma- chines, total.....		17,467,548
Connecticut and Massa- chusetts.....	257	166,285	Illinois.....		1,974,712
Illinois and Ohio.....	1,586	556,341	New York.....		5,490,202
All other States.....	646	464,228	California and Washing- ton.....		553,396
Planers, total.....	193	1,104,786	Connecticut and New Jersey.....		4,893,613
Massachusetts.....	23	98,325	Iowa, Missouri, and Min- nesota.....		373,355
Ohio.....	133	858,360	Maine, Rhode Island, and Vermont.....		28,505
All other States.....	37	148,101	Michigan and Ohio.....		3,959,980
			All other States.....		193,785
Portable tools, total.....		11,896,325			
Drills, electric and pneu- matic.....	92,558	4,097,152	Welding machines, total.....		1,175,536
Ohio.....	26,312	1,054,027			
All other States.....	66,246	3,043,125	Wiredrawing machines, total.....		670,559
Hammers, pneumatic (chipping, riveting, calking, etc.).....	53,104	6,049,773	Massachusetts.....		197,470
Grinders, electric.....	18,500	1,122,167	New York, Ohio, and Pennsylvania.....		439,419
Ohio.....	2,620	305,170	All other States.....		33,670
Connecticut and Mas- sachusetts.....	249	28,275	Wireworking machines, total.....		2,141,750
Illinois and Wisconsin.....	361	33,460	Connecticut.....		1,014,360
All other States.....	15,270	755,262	Wisconsin.....		242,861
Other.....	(1)	627,233	Illinois, Indiana, and Iowa.....		215,034
Presses, total.....		7,994,953	New Jersey, New York, and Pennsylvania.....		406,682
Hydraulic.....	1,053	1,673,322	All other States.....		262,813
Bending and forming.....	1,015	1,592,075			
Forging.....	38	81,247	All other metal-working machinery, total.....		10,896,191
Power, for sheet-metal work.....	(1)	6,321,631			
Illinois and Indiana.....	(1)	293,190	Parts and attachments for machine tools, total.....		32,192,602
New Jersey and New York.....	(1)	1,794,709	Connecticut.....		4,656,946
All other States.....	(1)	4,233,732	Illinois.....		3,751,542
			Indiana.....		404,733
Punching machines (sta- tionary), total.....	1,034	1,910,160	Massachusetts.....		1,657,001
Riveting machines (sta- tionary), total.....	(1)	687,519	Michigan.....		4,198,124
Screw machines (auto- matic), total.....	2,301	5,919,266	Missouri.....		296,565
Multiple-spindle.....	1,140	3,971,721	New Jersey.....		523,425
Single-spindle.....	1,161	1,947,545	New York.....		2,212,661
Shapers, total.....	1,125	1,614,760	Ohio.....		8,264,085
Connecticut.....	169	212,500	Pennsylvania.....		1,481,267
Ohio.....	537	680,954	Rhode Island.....		651,118
Massachusetts and Rhode Island.....	53	64,735	Vermont.....		2,494,713
All other States.....	366	656,571	Wisconsin.....		1,059,822
Shears (power), total.....	1,892	1,351,204	All other States.....		450,600
Illinois.....	344	139,033			
Ohio.....	663	407,580	Parts and attachments for metal-working machinery, other than machine tools, total.....		409,687
Pennsylvania.....	26	40,497			
Delaware, New Jersey, and New York.....	414	397,184			
Indiana and Wisconsin.....	403	343,697			
All other States.....	42	23,213			

1 Data incomplete.

TABLE 6.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States" however, reported larger values of products than some of the States shown separately]

INDUSTRY AND STATE	Num-ber of estab-lish-ments	PERSONS ENGAGED IN THE INDUSTRY					Horse-power	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufac-ture <sup>1</sup>
		Total	Pro- pri- etors and firm mem- bers	Salari- ed officers and em- ployees	Wage earners (average number)								
THE INDUSTRY AS A WHOLE													
United States.....													
	378	44,490	71	27,594	36,825	147,418	\$18,752,811	\$55,931,810	\$1,797,942	\$54,524,362	\$175,592,488	\$121,068,126	
Connecticut.....													
	37	5,126	6	912	4,208	16,659	2,065,640	6,432,782	3,890	3,956,139	16,447,819	12,491,680	
	33	2,712	2	480	2,230	10,117	1,253,650	3,650,634	15,512	3,822,446	12,671,305	8,848,859	
	12	1,264		275	980	4,111	1,570,244	1,344,414	88,541	1,488,584	4,738,435	3,249,851	
	5	149	5	29	115	468	84,119	179,744	40	206,002	690,373	490,371	
Massachusetts.....													
	36	3,393	7	856	2,530	12,814	2,519,441	3,721,198	1,448,268	4,062,810	15,459,359	11,396,549	
	34	2,473	7	387	2,079	6,112	997,285	3,313,638	25,287	3,413,459	10,948,706	7,535,247	
	5	89	3	26	60	225	45,764	75,333	52,060	85,363	432,043	343,710	
	4	196		34	162	417	69,979	228,658		132,669	625,269	492,600	
New Hampshire.....													
	5	90	3	15	72	315	34,406	91,537		100,455	302,406	201,951	
	12	1,802	2	280	1,520	5,228	715,353	2,659,518	234	2,146,661	6,398,413	4,251,752	
	25	3,959	12	751	3,196	14,942	1,844,763	4,896,134	4,066	4,889,821	14,796,208	9,906,357	
	33	11,395	11	1,853	9,531	33,180	4,200,738	14,517,131	18,622	14,230,609	42,329,449	28,098,840	
Pennsylvania.....													
	30	3,721	7	696	3,018	15,796	1,662,987	4,399,349	105,624	6,306,062	18,370,513	12,064,451	
	6	1,446	1	286	1,139	5,692	814,504	1,719,609		2,318,321	6,653,088	4,354,787	
	20	1,924		384	1,540	6,727	908,053	2,261,225	7,076	2,181,518	6,695,811	4,514,293	
	20	4,751	5	330	4,416	14,615	994,885	6,528,918	28,422	5,180,473	18,007,271	12,826,798	

See footnotes at end of table

TABLE 6.—GENERAL STATISTICS, BY STATES: 1925—Continued  
[See note at head of this table]

INDUSTRY AND STATE	Num- ber of estab- lish- ments	PERSONS ENGAGED IN THE INDUSTRY					Horse- power	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufac- ture <sup>1</sup>
		Total	Pro- pri- etors and firm mem- bers	Salaried officers and em- ployees	Wage earners (average number)								
MACHINE TOOLS ONLY													
United States.....	329	37, 279	63	6, 385	30, 831	118, 819	\$15, 402, 295	\$46, 711, 302	\$211, 324	\$43, 826, 151	\$144, 202, 483	\$100, 376, 332	
Connecticut.....	20	4, 494	6	792	3, 696	15, 349	1, 738, 687	5, 791, 366	1, 602	3, 281, 111	14, 217, 612	10, 686, 501	
Illinois.....	29	2, 460	2	448	2, 019	9, 321	1, 102, 774	3, 285, 089	14, 856	3, 285, 089	11, 136, 108	7, 927, 997	
Michigan.....	31	2, 232	6	354	1, 872	5, 337	926, 680	3, 076, 184	16, 933	2, 922, 051	9, 694, 418	6, 872, 367	
Missouri.....	4	196	—	34	162	417	69, 979	228, 658	—	132, 669	626, 269	492, 600	
New Hampshire.....	5	90	—	15	72	315	34, 406	91, 537	—	100, 455	302, 406	201, 951	
New York.....	21	2, 177	11	461	1, 705	4, 547	1, 087, 019	2, 753, 793	4, 066	2, 129, 221	8, 431, 388	6, 302, 167	
Ohio.....	86	10, 105	11	1, 701	8, 393	30, 875	3, 871, 884	12, 501, 879	18, 622	12, 115, 325	36, 542, 025	24, 426, 700	
Pennsylvania.....	25	2, 952	7	591	2, 354	9, 646	1, 340, 742	3, 236, 092	4, 051	4, 915, 017	14, 349, 249	9, 434, 232	
All other States <sup>2</sup> .....	98	12, 564	17	1, 989	10, 558	43, 012	5, 170, 174	15, 746, 704	151, 194	15, 122, 191	48, 904, 008	33, 781, 817	
METAL-WORKING MACHINERY, OTHER THAN MACHINE TOOLS													
United States.....	49	7, 211	8	1, 209	5, 994	28, 599	3, 350, 516	9, 220, 508	1, 586, 618	10, 698, 211	31, 390, 005	20, 691, 794	
Connecticut.....	7	632	—	120	512	1, 310	327, 963	641, 416	2, 288	675, 028	2, 230, 207	1, 555, 179	
Illinois.....	4	243	—	92	211	796	90, 876	365, 545	2, 956	614, 335	1, 635, 197	950, 862	
Michigan.....	3	241	—	23	207	775	70, 655	239, 454	8, 354	591, 408	1, 254, 288	662, 880	
New York.....	5	1, 782	1	290	1, 491	10, 395	757, 744	2, 632, 341	—	2, 760, 600	6, 864, 820	3, 604, 220	
Ohio.....	7	1, 290	—	152	1, 138	2, 305	328, 864	2, 015, 252	—	2, 115, 284	5, 787, 424	3, 672, 140	
Pennsylvania.....	5	769	—	105	664	6, 150	322, 245	1, 103, 237	101, 573	1, 391, 045	4, 021, 204	2, 630, 219	
All other States <sup>3</sup> .....	18	2, 254	6	477	1, 771	6, 868	1, 462, 189	2, 743, 243	1, 473, 447	2, 550, 511	10, 196, 805	7, 646, 294	

<sup>1</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>2</sup> Not including 100 salaried officers and employees of central administrative offices, with salaries aggregating \$350,000. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals of 7,094 salaried officers and employees and \$49,102,811. (See "Central-administrative-office employees," p. 1138.)

<sup>3</sup> See first 8 lines, Table 4, p. 1048.

<sup>4</sup> California, 3 establishments; Colorado, 1; Delaware, 1; Iowa, 1; Maryland, 3; Nebraska, 1; Rhode Island, 8.

<sup>5</sup> California, 3 establishments; Delaware, 1; Indiana, 10; Kentucky, 4; Maryland, 2; Massachusetts, 33; Minnesota, 2; Nebraska, 1; New Jersey, 1; New York, 1; Rhode Island, 8; Vermont, 1; Wisconsin, 10.

<sup>6</sup> California, 2 establishments; Colorado, 1; Indiana, 2; Iowa, 1; Kentucky, 1; Maryland, 1; Massachusetts, 3; Minnesota, 3; New Jersey, 2; New York, 2; Wisconsin, 1.

## PUMPS AND PUMPING EQUIPMENT

[A preliminary report for this industry was issued under date of February 28, 1927]

**Description of the industry.**—This industry embraces all establishments engaged primarily in the manufacture of hand and power pumps of all kinds, such as water pumps, gasoline pumps, air pumps, oil pumps, spray pumps, and pump jacks and other pumping equipment.

**Detailed statistics of products.**—The numbers and the values of the several classes of pumps and pumping equipment manufactured in 1925 are shown in Table 4. No comparative data for prior census years are available.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925**

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925.....	253	17,935	\$25,278,060	\$730,274	\$50,328,435	\$120,148,157	\$69,819,722	56,470
1923.....	229	14,550	19,990,603	682,114	34,464,720	92,930,056	58,465,336	38,286
1921.....	221	12,186	13,969,531	43,470	26,803,969	69,962,413	43,158,444	( <sup>3</sup> )
1919.....	239	16,072	19,731,647	39,163	36,069,781	85,401,940	49,332,159	32,441
1914.....	183	8,322	5,555,203	131,111	9,453,744	24,214,722	14,755,978	17,141
PER CENT OF INCREASE								
1923-1925.....	10.5	23.3	26.4	7.1	46.0	29.3	19.4	47.5
1921-1923.....	3.6	19.4	43.1	( <sup>4</sup> )	28.6	32.8	35.5	-----
1921-1925.....	14.5	47.2	81.0	( <sup>4</sup> )	87.8	71.7	61.8	-----
1914-1925.....	38.3	115.5	355.0	457.0	432.1	396.2	373.2	229.4

<sup>1</sup> Including also cost of fuel, electric power, and mill supplies.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> These figures differ slightly from the corresponding ones published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3, p. 1051.)

<sup>5</sup> Not shown where percentage is more than 1,000.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 6, p. 1053]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	17,935	<i>16,685</i>	16,995	17,198	17,805	18,708	18,892
1923 <sup>1</sup> .....	14,550	<i>13,410</i>	13,805	14,324	14,728	14,705	14,846
1921 <sup>1</sup> .....	12,186	<i>15,293</i>	14,499	13,918	13,366	12,288	11,748
1919 <sup>1</sup> .....	16,072	<i>16,560</i>	16,466	16,512	16,297	16,039	<i>15,025</i>
California.....	1,654	1,524	1,580	1,689	1,765	1,765	1,696
Illinois.....	672	670	676	662	653	629	645
Indiana.....	2,488	2,399	2,360	2,360	2,435	2,614	2,567
Iowa.....	507	477	498	478	473	487	512
Massachusetts.....	2,052	1,645	1,694	1,692	1,920	2,346	2,602
Michigan.....	1,798	1,631	1,641	1,725	1,767	1,751	1,794
Minnesota.....	262	216	239	249	274	289	320
Missouri.....	239	191	236	242	269	299	303
New Jersey.....	1,717	1,872	1,906	1,834	1,763	1,713	1,581
New York.....	1,546	1,526	1,558	1,563	1,560	1,522	1,516
Ohio.....	2,453	2,175	2,232	2,253	2,414	2,576	2,669
Pennsylvania.....	1,180	1,122	1,190	1,171	1,140	1,216	1,205
Washington.....	10	6	7	7	12	12	13
Wisconsin.....	533	428	458	501	555	614	642

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <sup>1</sup> .....	18,925	18,531	18,426	17,983	17,615	17,562
1923 <sup>1</sup> .....	15,018	15,017	15,004	14,820	14,551	14,364
1921 <sup>1</sup> .....	11,206	10,939	10,909	<i>10,627</i>	10,645	10,802
1919 <sup>1</sup> .....	15,356	15,713	15,896	15,810	16,291	16,399
California.....	1,667	1,706	1,664	1,615	1,589	1,582
Illinois.....	675	680	689	690	694	698
Indiana.....	2,643	2,625	2,604	2,489	2,394	2,372
Iowa.....	510	500	534	532	531	548
Massachusetts.....	2,546	2,384	2,181	1,902	1,862	1,853
Michigan.....	1,787	1,813	1,917	1,955	1,907	1,892
Minnesota.....	317	280	243	241	239	239
Missouri.....	236	224	224	212	225	211
New Jersey.....	1,621	1,625	1,636	1,648	1,702	1,702
New York.....	1,530	1,534	1,532	1,548	1,562	1,597
Ohio.....	2,721	2,484	2,540	2,500	2,426	2,450
Pennsylvania.....	1,199	1,187	1,240	1,232	1,144	1,112
Washington.....	13	13	12	8	9	10
Wisconsin.....	624	558	530	534	511	443

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 87.6; 1923, 89.3; 1921, 69.5; 1919, 88.9.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Num-ber	Capacity	Num-ber	Capacity	Num-ber	Capacity
Prime movers, total.....	4, 503	<i>Horse-power</i> 56,470	2, 924	<i>Horse-power</i> 38,286	2, 169	<i>Horse-power</i> 1 32,441
Steam engines.....	57	8,762	57	11,004	{ 74	8,778
Steam turbines.....	21	9,496			{ 5	3,300
Internal-combustion engines.....	20	1,396			{ 38	1,479
Water wheels and turbines.....	7	1,110			{ 7	299
Electric motors driven by purchased current.....	4, 398	35,706	2, 827	23,978	2,045	18,585
Electric motors, total.....	9, 251	61,985	4, 804	40,219	2,440	23,420
Driven by purchased current.....	4, 398	35,706	2, 827	23,978	2,045	18,585
Driven by current generated in establish-ment reporting.....	4, 853	26,279	1, 977	16,241	395	4,835
Electric generators.....	83	<i>Kilowatts</i> 14,218	( <sup>2</sup> )	<i>Kilowatts</i> ( <sup>2</sup> )	( <sup>2</sup> )	<i>Kilowatts</i> ( <sup>2</sup> )

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY CLASS, NUMBER, AND VALUE: 1925

[No data for prior census years]

KIND	Number	Value
Total value.....		\$135,251,818
Pumps and pumping equipment industry, all products.....		120,148,157
Pumps and pumping equipment.....		94,155,078
Parts and attachments.....		12,040,692
Amount received for custom work and repairs.....		1,428,047
Miscellaneous products.....		12,524,340
Pumps and pumping equipment, secondary products of other industries.....		15,103,661
Pumps and pumping equipment, total, all industries.....		109,258,739
Power pumps, not including gasoline-filling-station pumps nor spray pumps:		
Steam, reciprocating (horizontal and vertical).....	(1)	7,640,085
Centrifugal (all types).....	(1)	17,550,765
Rotary.....	(1)	3,264,677
Air.....	(1)	1,156,611
Oil-well.....	(1)	2,402,681
Other power pumps.....	(1)	13,713,287
Hand pumps, not including gasoline-filling-station pumps nor spray pumps:		
Air (tire and other).....	5,682,504	2,335,887
Oil.....	(1)	1,403,717
Water—		
Windmill type.....	169,568	1,043,899
Other types.....	688,702	2,601,478
Other hand pumps.....	(1)	2,255,537
Gasoline-filling-station pumps (hand and power).....	(1)	33,696,696
Spray pumps (including complete outfits):		
Hand.....	330,058	1,753,136
Power.....	13,766	2,143,483
Residence water-supply units.....	103,777	9,818,090
Pump jacks.....		487,229
Other pumping equipment.....		5,988,481

<sup>1</sup> Data incomplete.

TABLE 5.—PRINCIPAL PRODUCTS, BY CLASS, NUMBER, AND VALUE, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of certain specified items than some of the States shown separately]

CLASS AND STATE	Number	Value	CLASS AND STATE	Number	Value
Power pumps, not including gasoline-filling-station pumps nor spray pumps:			Hand pumps, not including gasoline-filling-station pumps, nor spray pumps.—Con.		
Steam, reciprocating (horizontal and vertical).....	(1)	\$7,640,085	Water:		
Indiana, Iowa, and Kentucky.....	(1)	496,350	Windmill type.....	169,568	\$1,043,809
Massachusetts.....	(1)	947,685	Illinois.....	28,328	194,088
Michigan.....	(1)	1,761,495	Indiana and Michigan.....		145,607
New Jersey and Pennsylvania.....	(1)	2,940,301	Iowa.....	17,442	152,871
New York.....	(1)	318,440	Ohio.....	27,103	253,212
Ohio.....	(1)	513,125	Wisconsin.....	55,595	63,203
Wisconsin.....	(1)	447,189	All other States.....	9,279	231,918
All other States.....	(1)	216,500			
Centrifugal (all types).....	(1)	17,550,765	Other types.....	688,702	2,601,478
California.....	(1)	3,589,066	Illinois.....	49,690	172,433
Connecticut and Massachusetts.....	(1)	298,539	Indiana.....	25,806	129,923
Illinois.....	(1)	2,517,427	Iowa.....	87,834	231,979
Indiana and Ohio.....	(1)	811,578	Michigan and Minnesota.....		73,405
Michigan.....	(1)	1,475,002	New York.....	39,640	643,314
New Jersey.....	(1)	4,924,993	Ohio.....	208,958	1,128,593
New York.....	(1)	1,495,061	Wisconsin.....	239,922	158,533
Pennsylvania.....	(1)	626,171	All other States.....	14,163	163,298
All other States.....	(1)	1,812,928	Other hand pumps.....	(1)	2,258,537
Rotary.....	(1)	3,264,677	Gasoline-filling-station pumps (hand and power).....	(1)	33,696,696
Illinois and Indiana.....	(1)	312,544	California.....	(1)	1,067,574
Iowa and Minnesota.....	(1)	888,472	Illinois.....	(1)	127,867
Massachusetts.....	(1)	1,061,948	Indiana.....	(1)	15,377,045
Michigan and Ohio.....	(1)	472,141	Iowa and Kansas.....	(1)	638,025
New York.....	(1)	320,592	Missouri.....	(1)	534,820
All other States.....	(1)	208,980	Ohio.....	(1)	3,034,338
Air.....	(1)	1,156,611	All other States.....	(1)	12,917,027
Illinois.....	(1)	128,137	Spray pumps (including complete outfits):		
Indiana and Wisconsin.....	(1)	612,757	Hand.....	330,058	1,753,136
Michigan.....	(1)	82,590	Illinois.....	13,577	129,240
New York and Ohio.....	(1)	227,627	Michigan.....	33,241	170,722
All other States.....	(1)	105,500	Minnesota.....	69,387	422,100
Oil-well.....	(1)	2,402,681	New York.....	145,778	637,861
Other power pumps.....	(1)	13,713,287	Ohio.....	57,589	310,802
Hand pumps, not including gasoline-filling-station pumps, nor spray pumps:			All other States.....	10,486	82,411
Air (tire and other).....	5,682,504	2,335,887	Power.....	13,766	2,143,483
Indiana.....	2,509,681	739,870	Michigan.....	2,548	455,109
Michigan, Pennsylvania, and Ohio.....	1,295,305	462,960	New York.....	2,615	578,430
Minnesota, Missouri, and Nebraska.....	1,350,301	774,429	Ohio.....	4,023	222,628
New York.....	147,522	89,741	Pennsylvania.....	344	42,568
All other States.....	379,695	268,887	All other States.....	4,236	844,693
Oil.....		1,403,717	Residence water-supply units.....	103,777	9,818,090
			California.....	942	312,787
			Illinois.....	9,329	915,851
			Indiana.....	10,756	1,033,569
			Ohio.....	56,216	4,933,832
			Wisconsin.....	18,503	2,088,133
			All other States.....	8,031	533,918
			Pump jacks.....		487,229
			Other pumping equipment.....		5,068,481

<sup>1</sup> Data incomplete.

TABLE 6.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	253	23,333	98	15,300	17,935	56,470
California.....	44	2,188	37	497	1,654	4,081
Illinois.....	25	932	10	250	672	2,161
Indiana.....	20	3,279	3	788	2,488	8,100
Iowa.....	7	636	3	126	507	1,501
Massachusetts.....	12	2,677	3	622	2,052	7,558
Michigan.....	16	2,073	3	272	1,798	6,811
Minnesota.....	8	319	1	56	262	392
Missouri.....	10	285	4	42	239	501
New Jersey.....	6	2,426	-----	709	1,717	7,862
New York.....	25	2,134	5	583	1,546	4,704
Ohio.....	30	2,947	14	480	2,453	3,440
Pennsylvania.....	13	1,602	4	418	1,180	5,014
Washington.....	3	14	1	3	10	35
Wisconsin.....	9	721	-----	188	533	2,408
All other States <sup>2</sup> .....	25	1,100	10	266	824	1,902

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>3</sup>
United States.....	\$11,440,452	\$25,278,060	\$730,274	\$50,323,435	\$120,148,157	\$69,819,727
California.....	1,270,437	2,661,307	37,769	6,219,288	13,281,901	7,062,613
Illinois.....	631,663	1,030,065	95,342	2,348,966	5,473,534	3,124,568
Indiana.....	1,692,042	3,044,799	63,525	7,461,208	21,072,805	13,611,597
Iowa.....	279,703	684,510	-----	942,813	2,189,423	1,246,610
Massachusetts.....	1,474,567	3,378,036	29,676	6,547,683	13,160,912	6,613,229
Michigan.....	431,941	2,011,265	74,437	3,144,580	8,109,233	4,964,653
Minnesota.....	133,918	310,915	-----	714,432	1,417,933	703,501
Missouri.....	100,201	313,272	-----	691,813	1,387,299	695,481
New Jersey.....	1,352,689	2,501,476	-----	4,090,785	10,689,520	6,598,735
New York.....	1,072,604	2,200,212	5,565	3,011,436	7,871,712	4,860,776
Ohio.....	930,703	3,337,151	300	7,837,023	16,231,370	8,394,347
Pennsylvania.....	1,020,444	1,895,629	423,160	3,371,703	9,404,135	6,082,482
Washington.....	11,900	13,087	-----	44,091	92,723	48,682
Wisconsin.....	384,470	806,139	500	1,106,104	3,063,239	1,957,135
All other States <sup>2</sup> .....	653,110	1,090,197	-----	2,799,505	6,702,418	3,905,913

<sup>1</sup> Not including 259 salaried officers and employees of central administrative offices, with salaries aggregating \$765,697. For purposes of comparison with the statistics published for earlier years, these figures should be added to those given in the table, making combined totals of 5,559 salaried officers and employees and \$12,206,149. (See "Central-administrative-office employees," p. 1193.)

<sup>2</sup> Connecticut, 2 establishments; Delaware, 1; Georgia, 1; Kansas, 2; Kentucky, 1; Louisiana, 2; Maryland, 2; Nebraska, 2; North Carolina, 1; Oklahoma, 2; Oregon, 2; South Carolina, 1; Tennessee, 2; Texas, 2; Vermont, 1; Virginia, 1.

<sup>3</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>4</sup> See first 7 lines, Table 4, p. 1051.



# TEXTILE MACHINERY AND PARTS

[A preliminary report for this industry was issued under date of February 2, 1927]

**Description of the industry.**—This industry classification covers establishments engaged primarily in the manufacture of the following classes of products: (1) "Fiber-to-fabric" machinery—that is, machinery for working raw stock, and all textile-mill machinery used in subsequent processes in the preparation of yarn for weaving, knitting, etc.; (2) fabric machinery—looms, knitting machines, etc.; (3) machinery for bleaching, dyeing, printing, mercerizing, finishing, etc.; (4) miscellaneous textile machinery not included in any of the foregoing classes; (5) extra parts, attachments, and accessories for textile machinery.

**Extra parts, attachments, etc.**—The relatively large value of "Extra parts, attachments, and accessories for textile machinery," as shown in Table 4, page 1057—more than one-third of the total value of products for the industry—is accounted for by the fact that some manufacturers ship a considerable proportion of their output, especially that destined for export, in the form of "knocked-down" or partly assembled machines. The records of these manufacturers do not in all cases show the numbers of complete machines represented by such shipments, and accordingly they are necessarily reported as parts.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925-----	379	27,869	\$37,463,081	\$591,744	\$39,036,868	\$121,653,324	\$82,616,456	61,738
1923-----	428	35,672	46,022,545	589,726	49,705,554	140,661,358	90,955,804	56,295
1921-----	421	31,025	38,850,060	210,261	44,903,788	128,934,896	84,031,108	(3)
1919 <sup>4</sup> -----	432	31,823	36,528,729	178,686	45,636,628	122,089,264	76,452,636	<sup>5</sup> 41,744
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925-----	-11.4	-21.9	-18.6	0.3	-21.5	-13.5	-9.2	9.7
1921-1923-----	1.7	15.0	18.5	180.5	10.7	9.1	8.2	-----
1921-1925-----	-10.0	-10.2	-3.5	181.5	-13.1	-5.6	-1.7	-----

<sup>1</sup> Including also cost of fuel, electric power, and mill supplies.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Not classified as a separate industry prior to 1919.

<sup>5</sup> This item differs slightly from the corresponding one published in the report for 1919 because of the exclusion here and the inclusion in the previous report of data for purchased power other than electric. (See footnote 1, Table 3, p. 1056.)

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 5, p. 1058]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <sup>1</sup> .....	27,869	27,737	28,379	28,112	28,024	28,177	27,727
1923 <sup>1</sup> .....	35,672	<b>35,694</b>	34,569	35,681	36,404	36,467	36,284
1921 <sup>1</sup> .....	31,025	<b>34,113</b>	33,286	32,634	30,836	30,389	30,689
1919 <sup>1</sup> .....	31,823	30,296	29,630	29,138	28,698	28,503	30,706
Alabama.....	7	7	7	7	7	7	7
Connecticut.....	420	315	327	338	356	376	391
Georgia.....	197	192	213	205	197	198	199
Illinois.....	823	710	687	708	722	789	829
Massachusetts.....	13,687	14,825	14,560	14,271	14,081	13,999	13,585
New Hampshire.....	912	907	950	909	994	1,016	903
New Jersey.....	1,519	1,343	1,387	1,417	1,450	1,543	1,588
New York.....	319	322	337	352	325	301	299
North Carolina.....	263	270	284	281	278	280	254
Pennsylvania.....	4,346	4,121	4,154	4,212	4,229	4,287	4,377
Rhode Island.....	3,781	3,713	3,825	3,846	3,821	3,806	3,740
South Carolina.....	101	112	111	110	103	103	92
Vermont.....	214	221	225	219	219	213	208

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	Septem-ber	October	Novem-ber	Decem-ber
United States:						
1925 <sup>1</sup> .....	27,610	<b>27,428</b>	27,431	27,513	27,833	<b>28,456</b>
1923 <sup>1</sup> .....	<b>36,666</b>	36,279	36,056	35,704	35,302	34,953
1921 <sup>1</sup> .....	30,440	30,022	29,777	<b>29,710</b>	29,914	30,543
1919 <sup>1</sup> .....	32,456	32,904	33,981	34,361	34,577	<b>35,426</b>
Alabama.....	7	7	7	7	7	7
Connecticut.....	426	474	495	500	509	533
Georgia.....	188	185	192	197	198	198
Illinois.....	881	922	903	896	918	907
Massachusetts.....	13,397	13,139	13,136	13,130	13,164	13,459
New Hampshire.....	865	871	849	863	901	916
New Jersey.....	1,016	1,626	1,594	1,563	1,556	1,545
New York.....	301	286	323	335	318	325
North Carolina.....	250	248	242	254	254	262
Pennsylvania.....	4,391	4,361	4,371	4,479	4,537	4,635
Rhode Island.....	3,724	3,708	3,691	3,720	3,792	3,987
South Carolina.....	91	90	92	97	105	111
Vermont.....	207	210	218	214	205	207

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 96.4; 1923, 91.9; 1921, 87.1; 1919, 81.6.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Number	Capacity	Number	Capacity	Number	Capacity
		<i>Horse-power</i>		<i>Horse-power</i>		<i>Horse-power</i>
Prime movers, total.....	6, 148	61, 738	5, 325	56, 295	2, 104	41, 744
Steam engines.....	80	12, 516	100	20, 398	134	17, 755
Steam turbines.....	8	4, 730				
Internal-combustion engines.....	25	818	37	890	50	862
Water wheels and turbines.....	27	2, 257	32	2, 117	41	2, 595
Electric motors driven by purchased current.....	6, 008	41, 417	5, 156	32, 890	1, 874	18, 040
Electric motors, total.....	7, 869	58, 553	6, 095	41, 924	2, 630	27, 338
Driven by purchased current.....	6, 008	41, 417	5, 156	32, 890	1, 874	18, 040
Driven by current generated in establishment reporting.....	1, 861	17, 136	939	9, 034	756	9, 298
Electric generators.....	58	<i>Kilowatts</i> 9, 323	(?)	<i>Kilowatts</i> (?)	(?)	<i>Kilowatts</i> (?)

<sup>1</sup> This total differs from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—PRODUCTS, BY CLASS, NUMBER, AND VALUE, FOR SELECTED STATES: 1925 AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of certain specified items than some of the States shown separately]

CLASS AND STATE <sup>1</sup>	1925		1923	
	Number	Value	Number	Value
Total value.....		\$122, 929, 268		\$141, 899, 037
Textile machinery and parts industry, all products.....		121, 653, 324		140, 061, 358
Textile machinery and parts.....		108, 078, 182		126, 168, 069
Repair work and contract work.....		7, 796, 596		9, 678, 965
Miscellaneous products.....		5, 778, 546		4, 813, 724
Textile machinery and parts, secondary products of other industries.....		1, 275, 944		1, 237, 679
Textile machinery and parts, total value, all industries.....		109, 354, 126		127, 406, 348
Massachusetts.....		45, 718, 696		61, 386, 323
Pennsylvania.....		21, 159, 721		20, 264, 645
Rhode Island.....		16, 782, 769		18, 476, 815
New Jersey.....		7, 385, 176		6, 035, 996
Illinois.....		2, 293, 169		1, 749, 755
New York.....		1, 826, 949		2, 755, 078
North Carolina.....		1, 098, 537		1, 256, 712
Vermont.....		602, 278		653, 209
South Carolina.....		431, 869		647, 652
New Hampshire, Maine, and Connecticut.....		10, 668, 317		12, 691, 399
All other States.....		1, 386, 645		1, 488, 164
Fiber-to-fabric machinery, total <sup>1</sup> .....		19, 879, 797		33, 684, 071
Picker machines, total.....	2, 467	2, 221, 673	2, 950	3, 714, 926
Massachusetts.....	2, 276	2, 034, 991	2, 871	3, 650, 165
Carding machines, total.....	1, 163	1, 762, 630	3, 076	4, 345, 638
Massachusetts.....	1, 124	1, 660, 584	2, 870	4, 052, 529

See footnotes at end of table

TABLE 4.—PRODUCTS, BY CLASS, NUMBER, AND VALUE, FOR SELECTED STATES: 1925 AND 1923—Continued

[See note at head of this table]

CLASS AND STATE <sup>1</sup>	1925		1923	
	Number	Value	Number	Value
Fiber-to-fabric machinery—Continued.				
Combing machines, Massachusetts <sup>2</sup> .....	231	\$507,056	197	\$528,025
Drawing frames, total <sup>1</sup> .....	3,145	388,343	4,894	1,215,643
Roving machines, total.....	1,119	1,592,361	2,649	4,670,147
Massachusetts.....	503	778,710	(1)	(1)
Spinning machines, total.....	3,271	3,787,986	6,045	9,492,941
Massachusetts.....	1,544	2,118,756	3,149	5,748,412
Doubling and twisting frames, total.....	1,523	2,418,873	1,570	3,205,381
Massachusetts.....	614	1,275,431	874	1,946,929
Winders—Skein, spool, bobbin, quill, cone, etc., total.....		5,620,511		5,289,093
Massachusetts.....		743,736		1,347,931
New Jersey.....		680,303		(1)
Pennsylvania.....		245,369		(1)
Beaming, warping, and slashing machines, total.....		1,580,364		1,222,277
New Jersey.....		832,107		207,653
Massachusetts.....		538,941		864,604
Fabric machinery, total <sup>1</sup> .....		31,063,595		30,402,137
Looms for weaving, except carpet and rug, total.....	28,264	15,173,457	33,530	14,141,305
Massachusetts.....	25,261	13,481,818	30,853	12,870,522
Looms for weaving, carpet and rug, total <sup>1</sup> .....	1,355	542,879	1,259	1,948,787
Knitting machines, total.....	30,370	14,344,031	40,693	13,241,732
Spring needle <sup>1</sup> .....	2,277	5,377,522	3,787	5,452,177
Latch needle.....	19,933	8,356,820	14,325	5,838,613
Pennsylvania.....	4,736	2,892,675	(1)	(1)
New York.....	416	277,006		(1)
Other knitting machines, including loopers <sup>1</sup> .....	8,160	609,689	22,581	1,950,942
Braiding machines.....	3,812	815,587	7,375	988,287
Other fabric machines, including lace and net, embroidery, and cordage and rope <sup>1</sup> .....		187,641		82,026
Machinery for bleaching, dyeing, printing, mercerizing, finishing, etc., stock, yarn, and cloth, total.....		7,800,379		10,276,621
Pennsylvania.....		2,683,772		4,952,327
Rhode Island.....		1,971,015		1,849,587
New Jersey.....		1,503,583		1,049,917
Massachusetts.....		1,371,400		1,613,260
Other textile machinery, total.....		\$ 8,569,690		\$ 11,355,549
Extra parts, attachments, and accessories for textile machinery, total.....		42,040,665		41,687,970
Massachusetts.....		17,971,508		18,422,712
Rhode Island.....		7,259,851		6,643,513
Pennsylvania.....		6,109,536		5,548,027
New Jersey.....		3,790,234		3,970,463
New Hampshire.....		3,012,257		2,354,304

<sup>1</sup> State statistics for certain classes of products are omitted to avoid disclosing operations of individual establishments.

<sup>2</sup> No combing machines reported for other States.

<sup>3</sup> Includes textile machinery and parts to the value of \$1,275,944 for 1925 and \$1,237,679 for 1923 made as secondary products by establishments classified in other industries and not reported separately by class.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	379	32,530	201	4,460	27,869	61,738
Alabama.....	3	13	12	2	7	6
Connecticut.....	12	476	4	44	420	693
Georgia.....	13	226	6	23	197	182
Illinois.....	6	1,043	-----	220	823	2,179
Massachusetts.....	123	15,465	78	1,700	13,687	29,575
New Hampshire.....	8	1,106	2	192	912	2,093
New Jersey.....	52	1,774	27	228	1,519	2,196
New York.....	21	493	11	163	319	655
North Carolina.....	13	314	5	46	263	520
Pennsylvania.....	59	5,173	27	800	4,346	10,788
Rhode Island.....	47	4,589	17	791	3,781	7,381
South Carolina.....	5	125	6	18	101	100
Vermont.....	3	224	2	8	214	411
All other States <sup>1</sup> .....	14	1,509	4	225	1,280	4,899

  

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>2</sup>
United States.....	\$11,539,366	\$37,463,681	\$591,744	\$39,036,868	<sup>3</sup> \$121,653,324	\$82,616,456
Alabama.....	2,400	6,396	-----	20,223	40,509	20,286
Connecticut.....	140,763	546,404	-----	612,088	1,972,607	1,360,519
Georgia.....	68,102	165,490	-----	301,020	702,649	401,629
Illinois.....	492,463	1,245,181	-----	638,125	3,760,732	3,122,607
Massachusetts.....	4,784,194	17,769,454	60,939	16,584,208	51,411,150	34,826,942
New Hampshire.....	523,009	1,283,563	-----	1,593,376	6,934,488	5,341,112
New Jersey.....	616,417	2,146,965	235,463	2,909,485	7,480,614	4,571,129
New York.....	240,199	446,351	36,548	517,510	1,881,755	1,364,245
North Carolina.....	160,075	297,267	-----	411,345	1,339,133	927,788
Pennsylvania.....	2,117,795	6,650,184	248,336	7,935,995	23,668,882	15,732,887
Rhode Island.....	1,843,913	5,005,224	10,391	5,751,718	17,508,719	11,757,001
South Carolina.....	47,174	97,855	-----	169,019	438,261	269,242
Vermont.....	25,049	285,139	-----	213,699	675,448	461,749
All other States <sup>1</sup> .....	476,813	1,518,208	67	1,379,057	3,838,377	2,469,320

<sup>1</sup> Delaware, 2 establishments; Iowa, 2; Kentucky, 1; Maine, 3; Maryland, 2; Michigan, 1; Ohio, 1; Tennessee, 1; Wisconsin, 1.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> See first 6 lines, Table 4, p. 1056.

# TYPEWRITERS AND SUPPLIES

[A preliminary report for this industry was issued under date of December 22, 1926]

**Description of the industry.**—This industry consists in the manufacture and rebuilding of typewriters and the manufacture of typewriter parts, accessories, and supplies. Typewriter accessories and supplies include carbon paper, ribbons, ribbon ink, ribbon spools, adding attachments, rubber keys, tools, etc.

**Number of establishments.**—Of the 70 establishments classified in this industry for 1925, 16 reported the manufacture of new typewriters and 5 the rebuilding of typewriters, and the remaining 49 were engaged in the manufacture of parts, accessories, and supplies.

The number of establishments classified in this industry has decreased from census to census since 1914. (See Table 1.) The decrease between 1919 and 1921 is accounted for in part by the change from \$500 to \$5,000 in the minimum value-of-products limit. (See "Limitation of statistics to establishments reporting products valued at \$5,000 or more," p. 5.) The decrease from 73 establishments in 1923 to 70 in 1925 was the result of a loss of 3 establishments, 2 of which reported commodities other than typewriters and supplies as their principal products and were therefore transferred to the appropriate industries, and 1 of which did no manufacturing in 1925.

**Detailed statistics of products** (Table 4, p. 1061).—The data for this industry were collected on the "general schedule," which does not call for detailed returns as to numbers or quantities and values of specified classes of products. All the important establishments, however, reported the number of typewriters manufactured, so that it has been possible, after making estimates for the output of a few unimportant establishments, to calculate the number of new typewriters made and the number rebuilt. These figures may be accepted as close approximations to accuracy, since the included estimates represent only about 1 per cent of the total for new typewriters and less than 9 per cent of that for rebuilt machines.

No attempt has been made to tabulate separately the values of complete typewriters and of parts, for the reason that many manufacturers did not report these values separately.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1925

[Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. See sec. 10, p. 5]

YEAR OR PERIOD	Number of establishments	Wage earners (average number)	Wages	Paid for contract work	Cost of materials <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horse-power
1925-----	70	14,969	\$18,803,506	\$50,338	\$15,157,092	\$63,079,602	\$47,922,510	15,568
1923-----	73	14,963	18,210,199	23,272	13,977,459	52,498,404	38,520,945	11,451
1921-----	75	13,381	14,398,116	49,074	10,770,289	41,789,990	31,019,701	(3)
1919-----	88	15,669	17,009,432	8,083	16,143,662	52,737,661	36,593,999	* 13,054
1914-----	107	11,091	6,966,466	10,183	5,501,036	24,499,667	18,998,631	* 10,872
PER CENT OF INCREASE OR DECREASE (—)								
1923-1925-----	(9)	(6)	3.3	116.3	8.4	20.2	24.4	36.0
1921-1923-----	(9)	11.8	26.5	-52.6	29.8	25.6	24.2	-----
1921-1925-----	(9)	11.9	30.6	2.6	40.7	50.9	54.5	-----
1914-1925-----	-34.6	35.0	169.9	394.3	175.5	157.5	152.2	43.2

<sup>1</sup> Including also cost of fuel, electric power, and containers.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> Not called for on schedule.

\* These figures differ from those published in the reports for 1919 and 1914 because of the exclusion here and the inclusion in the previous reports of data for purchased power other than electric. (See footnote 1, Table 3, p. 1060.)

<sup>4</sup> Not computed where base is less than 100.

<sup>5</sup> Less than one-tenth of 1 per cent.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1919 TO 1925, AND FOR SELECTED STATES, 1925

[Some of the States for which no figures are given in this table reported larger numbers of wage earners than some of those for which statistics are shown. See headnote, Table 5, p. 1061]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
		January	February	March	April	May	June
United States:							
1925 <i>1</i> .....	14,969	<i>14,065</i>	14,259	14,633	14,664	14,705	14,782
1923 <i>1</i> .....	14,963	14,614	15,087	15,451	15,481	15,149	14,932
1921 <i>1</i> .....	13,351	<i>16,193</i>	15,455	15,342	14,631	14,085	13,308
1919 <i>1</i> .....	15,669	14,560	14,787	15,111	15,320	15,436	15,464
California.....	12	11	11	11	11	11	11
Connecticut.....	7,038	6,577	6,666	6,800	6,835	6,948	6,898
Illinois.....	828	735	745	784	796	802	835
New Jersey.....	404	402	393	408	413	405	403
New York.....	5,776	5,413	5,527	5,693	5,668	5,644	5,790
Ohio.....	71	75	76	74	75	73	71
Pennsylvania.....	604	610	601	621	625	584	539

STATE	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR THE NEAREST REPRESENTATIVE DAY					
	July	August	September	October	November	December
United States:						
1925 <i>1</i> .....	14,818	14,833	15,030	15,598	15,963	<i>16,286</i>
1923 <i>1</i> .....	15,092	14,887	<i>14,573</i>	14,741	14,936	14,804
1921 <i>1</i> .....	11,973	<i>9,102</i>	12,398	12,526	12,703	12,857
1919 <i>1</i> .....	15,534	<i>14,544</i>	14,990	16,790	17,413	<i>18,079</i>
California.....	11	11	13	13	13	13
Connecticut.....	6,915	6,928	7,126	7,423	7,570	7,772
Illinois.....	850	836	847	879	908	915
New Jersey.....	398	398	395	409	405	419
New York.....	5,750	5,741	5,743	5,957	6,131	6,259
Ohio.....	72	72	66	65	65	65
Pennsylvania.....	579	603	598	622	639	626

<sup>1</sup> Month of maximum employment indicated by bold-faced figures and that of minimum employment by *italic* figures. Per cent which minimum forms of maximum: 1925, 86.3; 1923, 92.9; 1921, 56.2; 1919, 80.4.

TABLE 3.—PRIME MOVERS, GENERATORS, AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1925, 1923, AND 1919

[No data in regard to prime movers were collected for 1921]

TYPE	1925		1923		1919	
	Number	Horse-power	Number	Horse-power	Number	Horse-power
Prime movers, total.....	950	15,568	706	11,451	589	<i>13,054</i>
Steam engines.....	23	4,621	22	6,242	34	6,222
Steam turbines.....	5	3,071			6	3,166
Internal-combustion engines.....	3	55			3	41
Electric motors driven by purchased current.....	919	7,821	680	5,143	546	3,625
Electric motors, total.....	1,418	13,484	1,202	10,566	1,152	10,004
Driven by purchased current.....	919	7,821	680	5,143	546	3,625
Driven by current generated in establishment reporting.....	499	5,663	522	5,423	606	<i>6,379</i>
Electric generators.....	23	<i>6,032</i>	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> This total differs slightly from that given in the report for 1919 because of the exclusion here and the inclusion in the 1919 report of data for purchased power other than electric (power generated outside the plant and transmitted into the plant by belt, cable, or shaft).

<sup>2</sup> Not called for on schedule.

TABLE 4.—NUMBER OF TYPEWRITERS BUILT, AND OTHER PRODUCTS, BY CLASS AND VALUE: 1925, 1923, AND 1921

CLASS	1925	1923	1921
Total value.....	\$64, 262, 413	\$53, 831, 897	\$42, 895, 971
Typewriters and supplies industry, all products.....	63, 079, 602	52, 498, 404	41, 789, 990
Typewriters and supplies.....	61, 738, 018	50, 569, 291	40, 235, 138
All other products.....	1, 346, 584	1, 929, 113	1, 554, 852
*Typewriter accessories and supplies, secondary products of other industries.....	1, 182, 811	1, 333, 493	1, 105, 981
Typewriters, number <sup>1</sup> .....	780, 936	744, 033	540, 768
New.....	741, 701	697, 789	488, 822
Rebuilt.....	39, 235	46, 244	51, 946
Typewriters and parts, new, value <sup>1</sup> .....	\$48, 309, 379	\$37, 951, 840	\$31, 971, 636
Rebuilt typewriters, value.....	1, 880, 607	1, 568, 840	
Carbon paper, value.....	6, 772, 491	6, 059, 251	
Typewriter ribbons, value.....	5, 377, 035	5, 141, 087	
Other typewriter supplies and accessories, value.....	376, 817	1, 181, 766	
All other products, including repairs, value.....	1, 346, 584	1, 929, 113	1, 554, 852

<sup>1</sup>Includes book typewriters, typewriter-adding machines, etc.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1925

[This table presents statistics for all States for which separate figures can be given without disclosing operations of individual establishments. Certain of the "All other States," however, reported a larger value of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average number)	
United States.....	70	17, 648	29	2, 650	14, 969	15, 568
California.....	3	25	9	4	12	39
Connecticut.....	6	7, 469	-----	431	7, 038	5, 442
Illinois.....	12	1, 135	3	304	828	1, 862
New Jersey.....	8	529	-----	125	404	787
New York.....	28	6, 773	10	987	5, 776	6, 518
Ohio.....	3	65	-----	24	71	124
Pennsylvania.....	4	1, 316	6	706	604	534
All other States <sup>1</sup> .....	6	306	1	69	236	262

STATE	Salaries	Wages	Paid for contract work	Cost of materials	Value of products	Value added by manufacture <sup>2</sup>
United States.....	\$4, 903, 501	\$18, 803, 506	\$50, 338	\$15, 157, 092	\$63, 079, 602	\$47, 922, 510
California.....	10, 758	13, 171	-----	60, 336	109, 862	49, 526
Connecticut.....	704, 655	8, 793, 377	47, 716	4, 433, 330	19, 602, 694	15, 169, 364
Illinois.....	628, 793	1, 141, 629	-----	1, 764, 413	4, 859, 937	3, 095, 524
New Jersey.....	332, 158	542, 527	174	1, 086, 773	2, 934, 239	1, 847, 466
New York.....	1, 856, 711	7, 210, 964	2, 448	6, 738, 921	27, 799, 822	21, 060, 901
Ohio.....	65, 172	90, 159	-----	269, 740	696, 094	426, 354
Pennsylvania.....	1, 195, 276	754, 936	-----	506, 034	6, 252, 670	5, 746, 636
All other States <sup>1</sup> .....	109, 978	256, 743	-----	297, 545	824, 284	526, 739

<sup>1</sup> Colorado, 1 establishment; Iowa, 1; Massachusetts, 2; Oregon, 1; Wisconsin, 1.

<sup>2</sup> Value of products less cost of materials. (See secs. 20 and 24, pp. 8 and 9.)

<sup>3</sup> See first 5 lines, Table 4.



## SUMMARY FOR INDUSTRIES IN GROUP 12 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES

[This table presents summary statistics for the industries in Group 12 other than those for which separate reports are given on pp. 983-1061. More detailed statistics for 1925 are given for the United States as a whole, in Table II, p. 1288; and summaries for States and large cities, carrying statistics for these industries in comparison with those for other industries, appear in Tables III and IV, pp. 1302 and 1381. See "General explanations," pp. 3-12; in particular, "Limitation of statistics to establishments reporting products valued at \$5,000 or more," p. 5, "Power equipment," p. 6, "Cost of materials," p. 7, "Value added by manufacture," p. 8, and "State and city statistics," p. 10.]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
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### CASH REGISTERS AND CALCULATING MACHINES

[Principal products: Cash registers, adding and calculating machines, adding attachments for typewriters, counting machines, fare registers and fare boxes, taxicab meters, slide rules, change-making machines, coin-counting machines, ticket-counting machines, voting machines, and sorting and tabulating machines]

<i>United States</i>							
1925	41	13,296	14,016	\$21,142,430	\$11,165,658	\$98,383,910	\$87,218,252
1923	37	14,971	( <sup>2</sup> )	22,775,197	12,483,128	195,105,570	82,622,442
1921	49	9,786	( <sup>2</sup> )	13,243,471	9,572,828	153,652,943	44,080,115
1919	65	16,544	14,645	22,537,265	10,889,998	183,539,025	72,649,027
<i>States, 1925</i>							
Illinois	6	1,053	1,049	1,459,370	845,152	9,076,539	8,231,387
Missouri	4	101	145	130,400	113,228	513,447	400,219
New York	7	1,123	1,850	1,234,171	1,957,570	7,172,848	5,215,278
All other States <sup>4</sup>	24	11,019	10,972	18,318,489	8,249,708	81,621,076	73,371,368

<sup>1</sup> For values of individual classes of products, see Table 1, p. 1031. See also last par. p. 1030.

<sup>2</sup> No comparable data.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> California, 1 establishment; Connecticut, 1; Iowa, 1; Massachusetts, 1; Michigan, 6; New Jersey, 2; Ohio, 8; Pennsylvania, 1; Rhode Island, 1; Wisconsin, 2. Ohio and Michigan reported larger values of products than any of the States for which figures are shown.

### GAS MACHINES AND GAS AND WATER METERS

[Principal products: Gas meters, gas-making machines, and gas regulators; acetylene generators; and water meters]

<i>United States</i>							
1925	61	5,514	7,375	\$7,428,842	\$13,038,272	\$34,292,059	\$21,253,787
1923	61	6,127	7,304	7,750,779	14,331,863	134,250,414	19,918,551
1921	65	4,280	( <sup>2</sup> )	5,211,931	9,000,272	121,956,424	12,956,152
1919	105	5,589	8,586	5,995,877	10,647,402	126,267,074	15,619,672
<i>States, 1925</i>							
Illinois	7	192	156	287,932	258,194	1,170,292	912,098
New Jersey	7	403	454	515,371	1,152,536	2,513,670	1,361,134
New York	11	1,725	1,849	2,325,267	3,485,842	10,340,138	6,854,296
Ohio	8	297	516	491,849	614,680	2,239,303	1,624,631
Pennsylvania	10	1,344	1,976	1,803,075	3,515,126	8,422,678	4,907,552
All other States <sup>3</sup>	18	1,553	2,424	2,005,348	4,011,894	9,605,978	5,594,084

<sup>1</sup> For values of individual classes of products, see Table 1, p. 1031. See also last par. p. 1030.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 2 establishments; Connecticut, 1; Indiana, 2; Kansas, 1; Kentucky, 1; Maryland, 3; Massachusetts, 3; Michigan, 2; Rhode Island, 1; Texas, 1; Wisconsin, 1.

### SCALES AND BALANCES

[Principal products: Scales, balances, automatic weighing machines, and calculating and computing scales]

<i>United States</i>							
1925	71	4,292	9,771	\$5,782,660	\$7,348,701	\$27,237,181	\$19,888,471
1923	65	4,215	9,615	5,500,035	6,594,483	24,156,982	17,562,499
1921	65	3,720	( <sup>2</sup> )	4,427,986	4,716,313	15,884,770	11,168,457
1919	79	5,432	7,441	6,533,978	6,993,682	20,641,038	13,647,356
<i>States, 1925</i>							
Illinois	15	555	1,190	808,747	965,637	3,133,187	2,167,550
Indiana	4	25	60	33,678	38,596	89,498	50,902
Massachusetts	4	73	399	108,782	104,296	484,660	380,364
Michigan	4	342	644	452,609	1,115,206	3,183,203	2,067,997
Missouri	3	83	123	90,185	131,116	453,807	322,691
New Jersey	9	256	517	331,931	449,143	1,356,743	907,600
New York	14	417	423	556,366	612,738	1,903,158	1,290,420
Pennsylvania	5	271	701	368,552	327,407	890,266	562,859
All other States <sup>3</sup>	13	2,270	5,709	3,031,810	3,601,565	15,742,659	12,138,094

<sup>1</sup> For actual value of scales and balances manufactured, see Table 1, p. 1031. See also last par. p. 1030.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Colorado, 1 establishment; Florida, 1; Kansas, 1; Kentucky, 2; Minnesota, 1; Ohio, 4; Vermont, 2; Wisconsin, 1. Ohio reported a larger value of products than any of the States for which figures are shown.

## SUMMARY FOR INDUSTRIES IN GROUP 12 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 1062]

YEAR AND STATE	Number of establishments	Wage earners (average number)	Horse-power	Wages	Cost of materials	Value of products	Value added by manufacture
<b>SEWING MACHINES, CASES, AND ATTACHMENTS</b>							
[Principal products: Sewing machines (hand, foot, and power) for home and factory use, including those designed for sewing leather; sewing-machine heads, attachments, parts, and accessories; and sewing-machine cases (cabinet and other)]							
<i>United States</i>							
1925-----	41	12,121	27,439	\$16,099,725	\$18,609,724	<sup>1</sup> \$46,298,336	\$27,688,612
1923-----	40	13,435	22,511	17,005,201	17,763,532	<sup>1</sup> 45,967,282	25,203,750
1921-----	36	12,569	( <sup>2</sup> )	12,528,182	14,937,035	<sup>1</sup> 35,608,297	20,671,262
1919-----	45	19,230	32,017	21,494,498	21,402,404	<sup>1</sup> 57,938,387	33,535,983
<i>States, 1925</i>							
Connecticut-----	3	1,572	3,120	1,972,656	561,743	3,895,928	3,334,185
Illinois-----	5	1,434	2,787	1,967,820	2,239,472	7,180,945	4,911,473
Massachusetts-----	8	722	1,698	1,017,156	825,892	2,817,181	1,991,289
New York-----	11	140	95	210,870	237,153	1,009,128	711,970
Pennsylvania-----	4	83	160	96,130	143,454	342,263	198,809
All other States <sup>3</sup> -----	10	8,170	19,579	10,835,093	14,542,005	31,052,891	16,510,886

<sup>1</sup> For values of individual classes of products, see Table 1, p. 1031. See also last par. p. 1030.<sup>2</sup> Not called for on schedule.<sup>3</sup> California, 1 establishment; Indiana, 2; Missouri, 2; New Jersey, 2; Ohio, 3. New Jersey reported a larger value of products than any of the States for which figures are shown.

## WASHING MACHINES, CLOTHES WRINGERS, DRIERS, AND IRONING MACHINES FOR DOMESTIC USE

[Principal products: Washing machines, drying machines, ironing machines, and clothes wringers, both hand and power driven, for use in homes]

<i>United States</i>							
1925-----	82	7,077	18,028	\$9,989,875	\$32,748,312	<sup>1</sup> \$69,568,206	\$36,819,894
1923-----	85	6,144	11,415	7,839,171	25,741,775	<sup>1</sup> 50,372,516	24,630,741
1921-----	96	4,147	( <sup>2</sup> )	4,898,188	16,621,634	<sup>1</sup> 30,198,566	13,576,932
1919-----	105	5,956	8,816	6,431,378	23,388,925	<sup>1</sup> 40,771,285	17,382,360
<i>States, 1925</i>							
Illinois-----	15	1,450	2,712	2,286,450	6,970,634	13,472,711	6,502,077
Iowa-----	12	1,792	4,202	2,916,674	9,129,551	25,447,152	16,317,601
Missouri-----	6	123	143	146,242	500,891	887,593	386,702
New York-----	8	1,479	4,622	2,134,519	8,013,767	15,049,860	7,036,093
Ohio-----	11	385	1,213	479,443	1,560,893	3,078,105	1,517,212
Pennsylvania-----	5	601	1,864	669,847	2,285,217	3,573,115	1,287,898
All other States <sup>3</sup> -----	25	1,247	3,272	1,356,700	4,287,359	8,059,670	3,772,311

<sup>1</sup> For values of individual classes of products, see Table 1, p. 1031. See also last par. p. 1030.<sup>2</sup> Not called for on schedule.<sup>3</sup> California, 2 establishments; Connecticut, 1; Indiana, 4; Kansas, 1; Massachusetts, 2; Michigan, 6; Minnesota, 4; Nebraska, 2; Rhode Island, 1; Wisconsin, 2.

## WINDMILLS AND WINDMILL TOWERS

[Principal products: Windmills, accessories and parts; windmill towers. Some establishments in this industry manufacture water tanks as secondary products]

<i>United States</i>							
1925-----	15	1,391	3,378	\$1,830,232	\$3,375,582	<sup>1</sup> \$7,984,005	\$4,608,423
1923-----	16	1,101	2,732	1,430,971	2,592,015	<sup>1</sup> 6,311,038	3,719,023
1921-----	24	1,383	( <sup>2</sup> )	1,580,988	3,459,493	<sup>1</sup> 6,529,604	3,070,109
1919-----	31	1,932	4,686	2,145,301	4,960,426	<sup>1</sup> 9,932,585	4,972,159
<i>States, 1925</i>							
Illinois-----	5	614	973	901,181	1,624,839	4,017,795	2,392,956
All other States <sup>3</sup> -----	10	777	2,405	929,051	1,750,743	3,966,210	2,215,467

<sup>1</sup> For actual value of windmills and windmill towers manufactured, see Table 1, p. 1031. See also last par. p. 1030.<sup>2</sup> Not called for on schedule.<sup>3</sup> Indiana, 2 establishments; Kansas, 1; Nebraska, 4; Ohio, 1; Wisconsin, 2.

## Group 13.—MUSICAL INSTRUMENTS AND PHONOGRAPHS

### THE GROUP AS A WHOLE

[A preliminary report for the four musical-instrument industries was issued under date of November 5, 1926, and a report for phonographs under date of November 11, 1926]

This group comprises five industries, namely, the manufacture of (1) pianos, (2) organs and orchestrions, (3) piano and organ materials for sale as such, (4) other musical instruments, and (5) phonographs. The products of the third industry are used as materials in the first and second. Moreover, some of the establishments engaged primarily in the manufacture of complete musical instruments or phonographs also produce parts and materials for sale as such. For these reasons the total value of products for the group, and to a smaller extent for some of the individual industries, exceeds somewhat the value of the products in the form in which they reach the ultimate consumer, and the total cost of materials as reported exceeds the amount actually expended for materials purchased from sources outside this group of industries.

**Decrease in number of establishments.**—The number of establishments classified in this group of industries decreased from 535 in 1923 to 461 in 1925 as the net result of a loss of 102 establishments and a gain of 28. The loss is accounted for as follows: Out of business, 50; idle, 12; reported commodities other than musical instruments as products of chief importance and therefore transferred to other industries, 22; reported products valued at less than \$5,000, 18. (See sec. 10, p. 5.)

**Detailed statistics of products.**—The differences between the values of the several classes of products as given in the unnumbered table "Musical Instruments—Production, by class, number, and value," on page 1066, and in the product tables for the several industries, and the corresponding figures in Tables 1 and 5 of the industry reports, are due to the fact that the detailed product statistics cover the entire output of the items, regardless of the industries reporting them, whereas the statistics in Tables 1 and 5 relate, respectively, to the establishments whose principal products are those from which the industries derive their titles. To illustrate: The total value of *organs* given in the product table, \$13,249,750, is made up of \$10,809,281 representing the value of organs made in the organ industry and \$2,440,469 representing the value of organs made as secondary products in the piano industry and other industries; whereas the value of products for the *organ industry*, \$12,283,089 (Tables 1 and 5), is made up of the value of organs made in the industry, \$10,809,281, and the value of secondary products normally belonging to other industries, \$1,473,808.

SUMMARY FOR GROUP 13, MUSICAL INSTRUMENTS AND PHONOGRAPHS:  
1919 TO 1925

[Data for establishments reporting products valued at less than \$5,000 are included in the figures for 1919 but not in those for subsequent years. See sec. 10, p. 5]

INDUSTRY AND CENSUS YEAR	Number of establishments	Wage earners (average number)	Wages	Cost of materials	Value of products	Value added by manufacture	Horse-power
Expressed in thousands of dollars							
Total:							
1925.....	461	46,980	62,502	98,761	231,687	132,926	97,318
1923.....	535	58,329	75,396	123,600	282,531	158,931	90,229
1921.....	600	45,113	54,494	94,988	212,989	118,001	(1)
1919.....	778	68,741	75,868	137,460	320,905	183,445	91,040
Organs and orchestrons:							
1925.....	57	2,460	3,610	3,749	12,283	8,534	3,983
1923.....	59	1,855	2,662	2,803	9,603	6,800	2,902
1921.....	56	2,346	3,343	3,731	10,185	6,454	(1)
1919.....	68	1,941	1,979	2,217	5,973	3,756	3,245
Pianos:							
1925.....	142	20,079	28,096	49,296	101,181	51,885	26,912
1923.....	160	22,208	30,679	54,179	111,160	56,981	26,859
1921.....	185	15,836	18,887	38,652	73,640	34,988	(1)
1919.....	191	22,967	25,474	54,365	107,088	52,723	28,697
Piano and organ materials:							
1925.....	94	8,618	10,131	15,294	36,836	21,542	15,734
1923.....	99	9,672	11,243	17,019	38,838	21,819	15,478
1921.....	89	5,569	5,970	8,222	18,597	10,375	(1)
1919.....	113	11,009	10,467	16,693	36,790	20,097	15,716
Musical instruments and materials, not elsewhere classified:							
1925.....	100	4,556	6,520	5,575	20,330	14,755	4,907
1923.....	106	4,103	5,842	4,349	15,619	11,270	3,830
1921.....	116	3,424	4,520	3,325	12,354	9,029	(1)
1919.....	240	4,113	3,985	4,445	12,506	8,061	3,219
Phonographs:							
1925.....	68	11,267	14,145	24,847	61,057	36,210	45,782
1923.....	111	20,491	24,070	45,250	107,311	62,061	41,160
1921.....	154	17,938	21,774	41,058	98,213	57,155	(1)
1919.....	166	28,721	33,963	59,740	158,548	98,808	40,163

<sup>1</sup> Not called for on schedule.

## MUSICAL INSTRUMENTS—PRODUCTION, BY CLASS, NUMBER, AND VALUE, FOR THE UNITED STATES: 1919 TO 1925

CLASS AND TYPE	1925	1923	1921	1919
Total value.....	\$170,742,253	\$175,336,227	\$115,126,407	\$164,190,663
The group as a whole, all products.....	\$170,629,405	\$175,278,245	\$114,973,770	\$162,357,279
Musical instruments, parts, and materials.....	\$164,819,338	\$168,868,751	\$114,973,770	\$162,357,279
All other products, value, and receipts for custom work and repairing.....	\$5,810,067	\$6,409,494		
Musical instruments, parts, and materials, secondary products of other industries.....	\$112,848	\$57,982	\$152,637	\$1,833,384
Pianos:				
Number.....	306,584	347,589	221,210	341,652
Value.....	\$93,676,977	\$104,362,578	\$60,267,751	\$95,823,444
Upright—				
Number.....	87,285	105,748	88,655	138,171
Value.....	\$16,873,982	\$21,675,047	\$17,557,337	\$29,396,703
Upright, player—				
Number.....	143,831	170,549	101,534	166,001
Value.....	\$38,166,755	\$46,295,896	\$29,850,973	\$49,277,593
Upright, player, reproducing type—				
Number.....	5,476	12,658	5,309	11,488
Value.....	\$2,193,001	\$4,648,998	\$2,836,637	\$4,067,785
Grand—				
Baby—				
Number.....	40,357	38,024	15,613	17,973
Value.....	\$16,244,241	\$16,100,915	\$7,756,868	\$8,651,904
Baby, player—				
Number.....	5,287	1,397	348	1,195
Value.....	\$2,042,350	\$937,927	\$279,927	\$662,377
Baby, player, reproducing type—				
Number.....	7,597	5,372	2,261	839
Value.....	\$6,317,357	\$4,492,002	\$2,576,610	\$1,048,937
Parlor—				
Number.....	9,170	5,899	2,562	2,172
Value.....	\$5,433,129	\$3,834,410	\$1,609,190	\$1,109,501
Parlor, player—				
Number.....	156	106	21	12
Value.....	\$103,801	\$107,776	\$20,393	\$9,752
Parlor, player, reproducing type—				
Number.....	2,543	2,631	1,432	113
Value.....	\$3,526,957	\$2,957,420	\$1,514,402	\$109,626
Concert—				
Number.....	579	666	101	87
Value.....	\$452,861	\$932,422	\$72,575	\$54,055
Automatic and electric—				
Number.....	4,303	4,539	3,374	3,511
Value.....	\$2,322,543	\$2,380,497	\$2,192,839	\$1,435,211
Organs:				
Number.....	6,315	9,484	9,828	27,580
Value.....	\$13,249,750	\$10,192,304	\$9,465,371	\$6,074,212
Pipe—				
Number.....	1,955	1,712	1,949	1,151
Value.....	\$12,808,220	\$9,653,690	\$8,717,057	\$4,185,535
Reed—				
Number.....	4,360	7,772	7,879	26,429
Value.....	\$441,530	\$538,614	\$748,314	\$1,888,677
Band and orchestral instruments.....	\$18,223,150	\$13,568,531	\$10,759,004	\$8,795,354
Wind instruments.....	\$9,477,978	\$7,811,981	\$7,081,740	\$4,286,058
Brass.....	\$8,846,386	\$7,305,014	\$5,973,722	\$3,942,941
Wood.....	\$631,592	\$506,967	\$1,108,018	\$343,117
Stringed instruments.....	\$5,858,714	\$3,468,424	\$1,954,067	\$3,061,955
Percussion and other instruments (chimes, xylophones, drums, bells, traps, etc.).....	\$2,886,458	\$2,288,126	\$1,723,197	\$1,447,341
Perforated music rolls.....	\$6,067,529	\$5,261,614	\$2,121,473	\$3,103,554
Pneumatic-player actions for installation in player pianos.....	\$14,782,477	\$14,693,117	\$1,091,000	\$1,474,511
Cabinet player attachments <sup>1</sup> .....			\$24,617	\$383,922
Parts and materials for musical instruments other than pianos and organs.....	\$1,867,131	\$1,851,207	\$1,713,278	\$3,676,661
Orchestrions <sup>2</sup> .....	\$1,842,197	\$38,215	\$245,954	\$546,404
Organ parts and materials, for sale as such.....	\$15,222,975	\$17,264,367	\$22,041,658	\$42,736,714
Piano parts and materials, for sale as such.....	\$4,157,092	\$4,894,299		
All other products <sup>3</sup> .....	\$1,652,975	\$1,515,195	\$1,396,401	\$1,575,887
Receipts for custom work, repairing, etc.....				

<sup>1</sup> Not shown separately for 1925 and 1923 in order to avoid disclosing operations of individual establishments.<sup>2</sup> Not shown separately for 1925 in order to avoid disclosing operations of individual establishments.<sup>3</sup> Musical-instrument cases, radio cabinets, miscellaneous woodwork, etc.